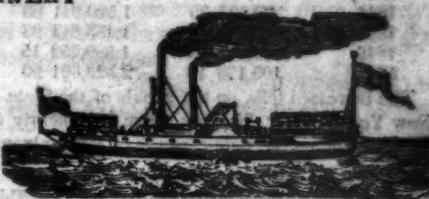
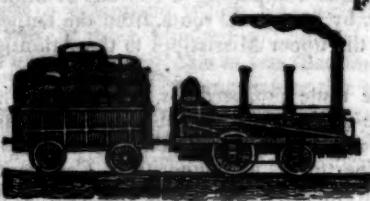


AMERICAN RAILROAD JOURNAL, AND GENERAL ADVERTISER

FOR RAILROADS, CANALS, STEAMBOATS, MACHINERY

AND MINES.



ESTABLISHED 1831.

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Correspondents will oblige us by sending in their communications by Tuesday morning at latest.

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AMERICAN RAILROAD JOURNAL.

PUBLISHED AT 105 CHESTNUT ST. PHILADELPHIA.

Saturday, September 25, 1847.

Schuylkill Coal Trade of 1847.

PHILADELPHIA AND READING RAILROAD—Amount of coal transported during the week ending Thursday, September 16, 1847.

	Tons. cwt.
From Port Carbon	10,331 14
" Pottsville	5,245 17
" Schuylkill Haven	14,197 11
" Port Clinton	3,266 04
Total for week	33,041 06
Previously this year	916,828 13
Total	349,869 19

HENRY M. WALKER,
Supt. Coal Tr. P. & R. R. R. Co.

Philadelphia and its Increase.

It is gratifying to us to chronicle the increase in the shipping of this port, as we do by giving place to the following paragraph, from the Shipping List:

New Line of Packets.—It will be seen by our advertising columns, that Messrs. Richardson, Watson & Co. have made arrangements for running a new line of packet ships between this city and Liverpool. One packet is to sail from this port on the 12th of each month. With the great increase in business, which must follow the completion of the Pennsylvania railroad, it would seem to require not only the present, but additional lines of packets or steamers between this port and Liverpool—and also to Havre. Every facility must be given to the shipment of produce from this port, in order to enable us to compete with New York and New Orleans.

Plank Roads.

The following paragraph describes the result of an enterprize of which we have heard something before.

" In company with George Geddes, Esq.," says the editor of the *Cultivator*, " we lately enjoyed a ride on the Salina and Central square plank road. This road, in constructing which Mr. Geddes was engineer, was completed during the past year. Its length is 15 miles. It is decidedly the most agreeable road to ride over, that we ever saw. The carriage glides as smoothly as on the frozen surface of a lake or river. The planks are hemlock, eight feet long and three inches thick, laid immediately on the earth—which is made perfectly smooth to receive them. They keep their place without any fastening. On one side of the road there is a good ground track 12 feet wide, made exactly level with the plank, on which carriages turn out, and which in dry weather is a good road. The cost of this road—including both the earth and plank tracks—was \$1500 per mile, and it is expected the plank will last eight years. A team will carry about double the weight on this road that it will on the common roads, and a horse in a light carriage will readily go along at the rate of 60 or 70 miles a day. In sections where plank can be cheaply procured, we have no doubt that these roads will be found profitable."

Plank roads are to become important auxiliaries to railroads. They will become the connecting links between railroads and adjacent villages, on which the people will use their own teams. We shall be gratified to see them extensively introduced throughout the country, and there is no man in the States better qualified to introduce them than Mr. George Geddes.

Boston and Maine Railroad.

At a meeting of the Boston and Maine railroad, says the *Boston Courier*, the following named gentlemen were chosen directors of the road for the ensuing year:—Thomas West, Andrew Pierce, Richard, W. Bayley, William F. Weld, S. A. Walker, Henry B. Stone, John Flint.

College of Mines in France.

The law authorizing the purchase of the estate of Chante Grillet, near St. Etienne, as a school of mines, has been decreed by a royal ordinance; such an institution will be most beneficially felt in that great coal mining district.

Harlem Railroad.

We understand that this company has made the contracts for the grading and masonry for the extension of the road to Dover, Dutchess county, 20 miles from its present terminus. The contracts are made with men of experience, able to go on with the work without delay, and complete it by the 1st day of July next. The whole cost, it is said, will be less than \$223,000, which is \$27,000 below the estimate of the engineer. The farmers of Dutchess county, alive to the importance of this work, have made a free gift of the right of way for nearly the entire distance. The cost of the right of way was estimated at \$25,000; it will not much exceed \$5,000. The engineer will immediately go on with the surveys, and locate the road from Dover to Chatham, 45 miles, where this road will unite with the Albany and Stockbridge road, 23 miles from the city of Albany; the surveys already made, and the routes marked out, offer very favorable lines and grades. It is said that the route proposed by the way of Pine Plains will materially shorten the line, and that it may be adopted. It is the intention of the company to have the grading of the road from Dover to Chatham under contract this year, and if practicable, have the whole line to Albany finished, and in operation to Albany, before the close of next year.

There appears to have been new energy and vigor infused into this company during the past year. They have erected a new and spacious engine house at 32d street—and are now erecting a freight depot at 27th street—for the accommodation of the business sure to result from the extension of the road into the heart of old Dutchess.

Increase of Business on the Public Works.

Many will be astonished, when they get the annual reports of the different public works this year, at the wonderful increase of the business of the year. The increase will be nearly, or quite, 20 per cent. greater than any previous year. The amount received for tolls on all the New York canals during the first week in September, was \$105,178 13 Same period in 1846 81,481 15

Increase 23,696 97

The aggregate amount received from tolls from the commencement of navigation to the 7th of September, inclusive, 130 days, was \$2,520,601 90 Same period in 1846, 145 days, 1,589,269 15

Increase 731,348 75

The following table shows the amount received for tolls during the first week in September, from the years 1840 to 1847, inclusive; and also the aggregate amount received from the commencement of navigation to the 7th of September, inclusive, during the same years:

New York State Canals.—Receipt of Tolls.

Year.	1st week in Sept.	Total to Sept. 7th.
1840,	\$57,752 21	\$71,482 44
1841,	62,330 88	1,197,461 16
1842,	52,766 49	967,673 45
1843,	68,720 27	1,196,272 05
1844,	77,593 35	1,580,041 86
1845,	75,740 39	1,453,814 93
1846,	81,481 15	1,589,259 15
1847,	105,178 12	2,320,601 90

The increased tolls on the canals of the State of New York thus far this year, have been nearly 50 per cent. and on the public works of Pennsylvania about forty per cent.

Public Works of Pennsylvania.—Income from Tolls.

Receipts for August, 1847.....	\$191,739 11
Receipts for August, 1846.....	136,313 20
 Increase August, 1847.....	55,426 91
Total amount of tolls received from December 1, 1846, to September, 1847.....	1,211,373 09
Same period previous year.....	847,201 58

Increase in 1847..... 364,171 51

The aggregate tolls this year will not fall much short of sixteen hundred thousand dollars, and the increase will not vary much from five hundred thousand dollars, compared with the total of last year. This result will give renewed confidence to the people of the State, and induce them to push through, at the earliest period possible, the Central railroad.

Springfield, Hartford and New Haven Road.

The annual meeting of the stockholders of this company was held in Springfield on Wednesday. The Hon. Thomas K. Brace was called to the chair, and Hon. I. W. Stuart was appointed secretary. It appears from the report of the directors that the receipts of the company have been much greater the past than any previous year.

For passengers.....	\$177,133 00
For freight.....	90,681 32
Rents, storage, steamboats, expresses,	
mail and other sources.....	56,910 96

Total receipts..... 324,725 28
Deduct expenses and interest..... 167,251 46

Balance..... 157,473 82
Cash on hand September 1, 1847..... 65,824 44

The amount received for passengers in 1846, was \$155,061 01—increase in 1847, \$22,071 99, or 14 1-3 per cent.

The amount received for freight in 1846, was \$61,250 73—increase in 1847, \$29,430 69, or 46 1-3 per cent.

The number of persons transported between all the stations on the road the past year, is \$226,595—the previous year, 191,270—showing an increase of 35,325. No accident of any serious character has occurred in the transportation of the passengers.

The expenses of the year have necessarily been large. In addition to the re-building of the bridge over Connecticut river, all the important bridges between Hartford and New Haven have been re-built in the most complete and substantial manner. Two new locomotives have recently been ordered; and during the year two passenger cars, two second-class cars, and 34 eight-wheeled freight cars, have been put upon the road.

The entire cost of the branch road to Connecticut

river, which was completed and put in operation at the opening of navigation in the Spring, is \$85,607 64. The business on it is large, and has fully justified the anticipations which led to its construction.

The relaying of the track between Hartford and New Haven with a heavy rail weighing 57 lbs. to the yard, was completed in the month of June, with the exception of three miles.

The directors have made a dividend of four per cent., payable on the 1st of October.

The following gentlemen were re-chosen directors for the ensuing year, viz:

Charles F. Pond, David Watkinson, Hartford; Elisha Peck, C. Vanderbilt, New York; Ezra C. Reed, New Haven, J. S. Brooks, Meriden; F. R. Griffin, Guilford; C. W. Chapin, William Dwight, Springfield.

The directors have re-elected Charles F. Pond president, James H. Wells treasurer, and Horatio Fitch secretary.

The increase of business on this road has exceeded even our expectations. It shows that we may rely confidently on a large increase in the various departments of traffic—especially of freight—which on this road exceeds, by over 46 per cent., that of last year. It may not another year show as rapid an increase—as there may not be both famine and war to stimulate trade next year—yet the increase will be constant, and the people will see that judicious investments in railroad stocks are among the very best that can be made; for the reason that their income will increase, and the cost of working them will decrease, from year to year.

Mississippi and Atlantic Railroad.
Boston Enterprise. Western Trade. Indianapolis Convention. Railway to take the course of the Cumberland Road. Connection with Cincinnati—with Baltimore—with Boston. Immense and increased value of Western Trade. Importance of this Railroad to Commerce, and to Value of Massachusetts Railroads.

We find in the Boston Courier, of 9th inst., the following article, showing conclusively that efforts are being made to unite the Boston and western interests. Indeed, even a casual observer must have observed, for years past, that the business men of Boston have been devising, and carrying out their plans to draw, as far as possible, the return business to themselves—and they will do it, too, to an astonishing extent, unless the other cities open greater facilities for rapid and cheap communication between their own ports and the granaries of the west.

We are not quite sure, but we conclude the article was written by some gentleman residing on the line west of Columbus, Ohio. He says:

"Boston is behind no other city in promoting the great improvements of the age; and her enterprize already overleaps the bounds of New England, and extends a helping hand to develop the latent energies of the remoter portions of our wide spread nation.

"The trade of the west, if placed in connection with the Atlantic States by continuous railroads, would greatly exceed in value the whole existing commerce of the United States with foreign nations; and it is somewhat remarkable that no combination of wealth and enterprize has hitherto projected and accomplished a scheme for a grand and unbroken railroad communication between the commercial cities of the Atlantic coast and the emporium of the Mississippi valley.

"In May last, a convention, at which the

present governor of Ohio presided, was held at Indianapolis, consisting of delegates from the three States of Ohio, Indiana and Illinois, to consult upon suitable means to effect a railroad connection between St. Louis and Cincinnati; and in conjunction with this object, a continued railroad connection between St. Louis, on the Mississippi, and the termination of the Baltimore and Ohio railroad at Wheeling, on the Ohio, with the ultimate view of thus completing a railroad communication, by one grand route, from the emporium of the upper Mississippi to the Atlantic border.

"The route proposed for this railway is the line of the great Cumberland road, as marked out under the direction of the engineer department, by authority of Congress. It runs from Wheeling, on the Ohio, through Columbus, the capital of Ohio, Indianapolis, the capital of Indiana, Terre Haute, on the Wabash, and thence in a direct line to St. Louis, on the Mississippi—taking, in its whole course, one of the most fertile regions of the west, with a population capable of insuring to the road a local business which would be alone sufficient to make it a safe and profitable investment.

"It intersects the Wabash and Erie canal at Terre Haute; the railroad from Madison, on the Ohio, to Indianapolis; the Cincinnati, Mad river and Sandusky railroad at Springfield, Ohio; and the great canals of that State, besides several railroads now in a state of progress or inception. The branch for Cincinnati will diverge from the main line at Richmond, which point is sixty miles only from that city, and lies upon the eastern border of Indiana.

"The whole distance from St. Louis to Wheeling is 600 miles, through districts remarkably favorable for the construction of the road. A company is already chartered to construct that portion of the road which passes through the State of Indiana, and the legislature of Ohio have granted the right of way for its entire course through that State to Wheeling. No further legislative action is therefore required to commence the prosecution of the whole line, with the exception only of that portion which extends through the State of Illinois, comprising one hundred and sixty miles.

"The wealth and enterprize of Indiana and of Ohio are fully adequate to accomplish their portion of the enterprize, and the city of St. Louis is ready to give a helping hand to that portion which passes through Illinois, where the population is not sufficiently dense or rich to accomplish the work without aid from abroad.

"The entire route, when completed, from St. Louis to Baltimore, will not exceed 950 miles in length, and may be readily travelled within 48 hours.

"Upon this route the whole travel from the eastern and middle States would inevitably concentrate. But the interest of the west invites her to a more direct route with the New England cities, which could be accomplished with readiness and certainty by a railroad diverging from the main stem at

Columbus, and striking the great Western railroad at Buffalo. A continuous line of railroad might thus be accomplished from Boston to St. Louis, by a direct and available route, every section of which would embrace a rich and well-peopled country, abundantly able to sustain such a road, by the facilities afforded to its local trade and intercourse.

"The waters alone of the great valley of the Mississippi bear annually upon their bosom a commerce which was estimated, in 1845, at three hundred millions of dollars. This trade will double in less than ten years. The natural and best market for this immense commerce, is New England; yet there is at this time, no safe and direct means of commercial intercourse with any portion of the west; and during several months in the year it is wholly interdicted by drought, or flood, or frost. Could any investment more safe, or that promises a better return be hoped for than is offered by an enterprise to unite the capital of New England with the emporium of the west by a railroad which is already half accomplished, and which may be completed by a less amount of capital than has been profitably expended on 200 miles of railroad in Massachusetts and the middle States.

"It is well known that other routes for railroad communication with the west are proposed. *They will all ultimately succeed!* —But the strongest route will be taken first. Let intelligent men decide upon the comparative merits of those which have been urged upon public attention.

"Bring the immense trade of the west directly into New England by well-constructed railroads, and the enterprise will not only afford, in itself, one of the safest and best investments ever offered to capital, but it will add from 25 to 50 per cent to the value of every existing railroad in Massachusetts.

"The public are much indebted to Dr. J. S. Bobbs, and Hon. E. M. Huntington, of Indiana, and to Gov. Bebb, of Ohio, for their intelligent and persevering efforts to promote this great enterprise. Success cannot fail to reward them."

Railroad from Cincinnati to St. Louis.
We find the following account of the proceedings of a meeting of the people of Cincinnati on the 11th of August, in a late Cincinnati paper. It shows that Cincinnati is resolved to be, at least, connected with the great line westward to St. Louis—if not on the *main* line. The editor says: "The adjourned meeting of the citizens of Cincinnati friendly to the early construction of a railroad from Cincinnati to St. Louis, making Indianapolis and Terre Haute, in Indiana, points on the line, took place in the hall of the Merchants' Exchange, on Tuesday evening, August 11th, and was largely attended.

"James Hall, Esq., chairman of the committee appointed at the previous meeting to prepare resolutions for the consideration of the adjourned meeting, made the following report."

"Resolved, That we have heard with much gratification of the project of a railroad from St. Louis to Cincinnati, and heartily concur in the opinion, that a road would be of inestimable value, not only to those cities, and the intermediate country, but to the travelling and

commercial community of the nation at large.

Resolved, That the vast amount of travelling and business passing daily and hourly between St. Louis and Cincinnati, the circuitous route of the communication by water, and its frequent obstruction by ice and low water, render the construction of a railroad between those points, not only necessary, but indispensable.

Resolved, That as a part of the great line of travel, between the sea ports of the Atlantic, and the producing regions of the west, the connection between St. Louis and Cincinnati is necessary and inevitable; and equally so, whether the remainder of the route be through Pittsburgh to Philadelphia, through Western Virginia to Baltimore, or through Kentucky, Tennessee and Georgia to Charleston.

Resolved, That the facilities which would be offered by such a road, for conveying the produce of the country lying along its route, to market, and especially to the great markets of Cincinnati and St. Louis, would in a few years more than repay the cost of its construction, in the value it would add to land and other property, even if it should yield no profit as a stock; but we believe that as an investment it would be one of the most profitable railroads in the United States.

Resolved, That considering the importance of this road to Cincinnati, we hold it to be incumbent on the citizens and city council, to extend to it, without delay, and in the most substantial form, their decided support, and we earnestly commend to them in this respect the public spirited and sagacious example of the city of St. Louis.

Resolved, That we respectfully and earnestly recommend to the city council of Cincinnati, that having first obtained the necessary authority, they subscribe on the part of the city for a liberal amount of the stock of the said road, of which one hundred thousand dollars shall be subscribed to the road from Cincinnati to Hamilton, in Ohio.

Resolved, That we further recommend to the city council, that they extend towards the contemplated road their sanction and approbation, by the appointment of a committee from their body to collect information in regard to the route, length, cost, advantages, and all other details and circumstances connected with said road, to correspond with other committees and bodies, who may have charge of the same subject in other places, and to report to the council from time to time all the information they may collect in regard to it, so that the said council, and all our citizens who may desire to patronize this magnificent national work, may have access to authentic facts in relation thereto.

Resolved, That the president and secretary of this meeting communicate these resolutions to the city council, and also cause them to be published in the city newspapers.

The meeting was addressed by Judge Huntington, of Indiana, Judge Hall, Rufus King, Esq., and others of Cincinnati. The remarks of Judge Huntington with reference to the easy practicability of the scheme, the great fertility of the country which the proposed

line would open to the leading exchanging and shipping points of the west, the assurances that have been given of large subscriptions in the counties that would be passed through, and the great importance of moving early—*promptly*—now—in effort to connect St. Louis and Cincinnati by an iron track such as that which is proposed, were extremely interesting, and listened to with great attention.

The resolutions were passed unanimously, and ordered to be published; after which the meeting adjourned.

R. BUCHANAN, Chairman.
W. D. GALLAGHER, Secretary.

Boston & Maine Railroad—Annual Report.

We have received a copy of the annual report of the directors of this company to the stockholders. It shows a very favorable state of its affairs. The increase in its business, during the three months ending with August, over the corresponding period of last year, was over \$55,000; exhibiting a state of prosperity highly gratifying to those interested. The directors say—

Since the last annual meeting of the stockholders, the railroad has continued in successful operation. The receipts from transportation of passengers and freight have continued to increase: and its prospects for the future are every way encouraging.

The Medford branch railroad, extending from the main track east of the Mystic river to the centre of the village of Medford, has been completed; and the trains of cars have passed over the road regularly since March 1st, 1847.

Arrangements for the use of the Portland, Saco and Portsmouth railroad by this company, in connection with the Eastern railroad company, have been carried into effect; to the great convenience of the travel between the State of Maine and Boston, and the intermediate towns between Boston and Portland on our own road and other railroads intersecting ours. This has given to the stock of the Portland, Saco and Portsmouth railroad an increased value, while it secures to the Boston and Maine, and Eastern railroads a terminus in the city of Portland advantageous to both these companies.

To secure the advantages to this road of the business that would probably be created by the extensive outlay of capital contemplated by the Essex company, on the banks of the Merrimac river in Andover and Methuen, as well also to provide the most direct railroad route from Manchester, N. H., to this city, should the legislature of New Hampshire grant a charter for a railroad from Manchester to Methuen, the president of this company in January, 1846, presented a petition to the legislature of this commonwealth, asking authority to change its line of railroad in Andover, and also to construct a branch railroad to Methuen, crossing the Merrimac river by a bridge. This petition was referred to the committee on railroads and canals, and at the meeting appointed by the committee for a hearing, the object of the petition was explained; but the committee refused to proceed, as the authority to petition did not emanate from a vote of the stockholders.

A meeting of the stockholders was immediately called, and held at Andover on the 7th of February, 1846, to determine if they would sanction this petition to the legislature. At this meeting, as it will be remembered by stockholders, there was a strong opposition to the change of location; and it was argued that a branch railroad, of a mile and a half in length, extending from the main track at

North Andover, would give all the facilities necessary for the companies established at what is now the town of Lawrence. To meet this opposition, the expediency of obtaining the grant was suggested as a precautionary measure, as some other parties might avail themselves of the valley of the Shawshene as a route for a railroad, to the great injury of this company. It was further argued that that part of the road from North Andover to Andover Bridge could be built immediately, and the residue through the valley of the Shawshene river, together with the bridge over the Merrimac river and Branch road to Methuen, be delayed until the Manchester and Methuen railroad should be chartered or commenced.

After this explanation, the stockholders passed the following vote:—"Voted, unanimously, that the stockholders approve and sanction the petition of the president of the company to the legislature of the commonwealth for the change of the location of the railroad in the town of Andover, and of the application for a charter to construct a branch railroad to the town of Methuen, in behalf of the corporation; as also to obtain permission to increase the capital stock by an amount not exceeding five hundred thousand dollars." The act applied for was granted by the legislature, and that part of the road between N. Andover and Andover bridge was built and opened for use in the spring of this year, with extensive side tracks sufficient for the delivery of all the materials sent there by railroad.

Still the companies who had commenced the work on the Methuen side of the river were subjected to the expense of a toll bridge in teaming their materials from the railroad to their works. The directors, aware of the expense and inconvenience to the various parties on the west side of the river, and having a strong faith that the Manchester and Methuen railroad would be chartered, determined to build the bridge over the Merrimac river; and to hasten the work, contracts were immediately made, that the stone piers might be built at the low stage of the river in the summer of 1846. This was done, and the contracts for the superstructure made, to be delivered as soon as practicable in the fall of the year; so that, at any rate, it could be put on early in the spring of the year 1847.—Most of the timber was delivered; but the contractors failed to deliver a portion of it, which was of extra dimensions, and difficult to be procured. From this cause the completion of the bridge has been delayed; but it is now nearly framed, and will, with all despatch, be finished.

The charter of the Manchester and Methuen railroad, which is to connect with this road at the line of New Hampshire, was

granted at the last session of the legislature of that State. The company has been organized; the stock taken, and it will no doubt be completed and open for use during the next year; when, in connection with other railroads extending into the northern and western section of our country, it must operate favorably upon the interests of this company.

The grading and masonry of that part of the change of the location of the road which runs from Andover bridge through Ballardvale to our present road at the Thompson curve in South Andover, was let to contractors highly recommended for their competency to perform their engagements. But the contractors for the grading have failed to expedite the work so energetically as they should have done; and from this cause, and the large excess of rock cutting over and above what was expected by the engineers as well as contractors, the road bed will not be completed before winter sets in. In referring thus minutely to the change of the location of the road, it is designed to meet a mistaken impression that this work has not been commenced as early as was expected by the stockholders.

We have now building and nearly completed, on our island in Charles river, an engine house and machine shop of extensive dimensions, calculated to meet the increased business of the road. Large additions have been made during the past year, and are continuing to be made, of motive power and working furniture; and preparations are making for laying a double track as far as Reading, which is designed to be continued to Lawrence.

The loss of five hundred tons of rail shipped from Wales, on board the ship Trial, which foundered at sea, has occasioned some delay in our improvements; but the company has sustained no important loss, as the cargo was fully insured. We have contracts for two thousand tons of rails in England, a part of which we shall soon be receiving.

THOS. WEST, President.

TREASURER'S REPORT.

The treasurer submits to the stockholders the following statement of the financial affairs of the corporation:

The amount of capital stock paid in on September 1, 1847, was \$2,596,154 02 The amount of debt, exclusive of unliquidated claims, was as follows: State loan, not now payable, \$150,000 00 Bonds, " " " 41,000 00 Notes payable, after deducting cash on hand and at interest..... 19,858 13

Amount expended on the Massachusetts portion of the road, to September 1st, 1847.

Main road..... \$1,593,648 64 Change of location at Lawrence..... 110,779 52 Medford branch..... 51,151 01

Amount expended on the New Hampshire portion of the road..... 804,455 49 Amount expended in Maine..... 66,067 05

Locomotives and cars..... \$2,626,101 71 182,627 80

Total expended on road and equipm't. \$2,808,729 51

Receipts and expenses for the financial year ending May 31, 1847, when the accounts of the corporation are made up.

RECEIPTS.	
Reserved profits, June 1, 1846.....	\$22,972 51
Passenger fares.....	264,863 39
Freight.....	144,139 06
Mail.....	5,235 01
Rents.....	548 87
	<u>\$437,758 84</u>

EXPENDITURES.	
Repairs of engines and cars.....	\$31,096 00
Repairs of road.....	20,104 21
Repairs of depots.....	1,867 90
Repairs of bridges.....	174 50
Wood.....	31,593 31
Wood and water.....	8,262 90
Oil.....	7,772 59
General expenses.....	14,611 66
Clearing snow.....	9 33
Care of bridges.....	993 34
Merchandise expenses.....	13,794 85
Portland, Saco & Ports. R.R. 19,166 66	
Of conductors and brakemen..... 8,923 44	
Enginemen and firemen..... 12,794 74	
Depots and offices..... 10,505 89	
Interest..... 16,464 83	
State tax of N.H. & other taxes 6,608 39	
	<u>204,744 54</u>

Profits	\$233,014 30
Dividend of \$3 50 per share, paid January 1, 1847.	\$83,310 50
Dividend of \$4 pr share, paid July 1, 1847.	95,212 00
	<u>178,522 50</u>
	\$54,491 80

On the 19th of December last, the directors ordered the sum of 20,000 dollars to be charged to profit and loss, on the ground of the depreciation of the engines and cars below their cost..... 20,000 00

Leaving as reserved profits..... \$34,491 80

The following is a statement of the earnings of the road since June 1, 1847, as compared with those of the preceding year.

	1846.	1847.
Earnings in June.....	\$29,777 61	\$40,306 05
" July.....	36,616 50	62,036 87
" August.....	34,331 82	53,679 89
	<u>\$100,725 93</u>	<u>\$156,022 81</u>

All which is respectfully submitted,
EDW. PICKERING,
Treasurer Boston and Maine Railroad.
Boston, September 1, 1847.

Railway Brakes.

We shall let no opportunity escape us of calling attention to this subject, and of placing before our readers the opinions and plans of practical men in relation to it; we therefore copy from the London Mining Journal, of 14th August, the plan of George Stevenson, Esq., as explained by him at a meeting of the Institution of Mechanical Engineers.

At a quarterly meeting of the Institution of Mechanical Engineers, held at the Philosophical Institute, Birmingham, on Friday, 6th inst., J. G. M'Connell, Esq., of the North Western railway, in the chair, the following communication from Mr. George Stevenson was read:

"The various accidents on railways arising from concussions and collisions (and especially the late accident at Wolverton) have induced me to draw my attention to the construction of a self-acting railway brake, which I have for several years had in view—a plan and model of which I have had made, and now lay before the society, with my descrip-

tion of its action and effects. When a railway train is moving at the rate of from 40 to 50 miles an hour, the momentum is so great that it cannot be stopped in any reasonable distance by the brakes at present in use; or if an axle tree break, or any accident happen to the engine, so as to prevent its progressing, the sudden shake causes the carriages to overrun each other, and those next the engine are almost certain to be crushed. In an accident of this kind neither the engine driver, stoker, or guard can be prepared; and before there is time for any of them to put on the brake at present in use, so as to be in the least degree effective, the collision or concussion has taken place. When the engine driver shuts off the steam, or applies his brake on the tender, the self-acting brake is immediately brought to bear upon every wheel attached to every carriage in the train so powerfully, if necessary, as to bring every wheel into the condition of a sledge. I think the train will be brought to a stand by this brake in 1-10th of the space in which it can be by the brakes at present used.

"My plan is as follows: I attach a couple of spiral springs to the levers of the brake of every carriage, and also connect them with the buffers; and if the carriage requires gentle breaking (which will always be the case when a train approaches a station,) the engine driver, by shutting off a portion of the steam, or applying the brake gently, will have complete command over the train, without any of those violent uneasy motions which are very frequent, and excessively disagreeable to passengers; and as the guard is frequently compelled to apply his brake so powerfully as to make the wheels slide on the rail, and cause a considerable amount of wear and tear on the tire of the wheel, by which it becomes flat sided, and makes the carriage uneasy, and creates a jumping motion on the rail. Suppose a train of carriages moving at the rate of from 30 to 40 miles an hour, and a signal is held out for the engine driver to stop, the moment he shuts off the steam, the whole of the brakes are brought into instant application of sledging the wheels, which will be more effectual than 50 men applying the common brakes, as the mischief is frequently done before the guard can be apprized of the approach of danger.

"It is frequently necessary for the trains to be backed into a siding; when this is required, the train will first have to be stopped, and in one minute the whole of the brakes can be disengaged from the buffers, as is shown in the model, and when the train proceeds they are again dropped into gear.

"The plan altogether appears so simple, that any ordinary mind can easily understand the whole of it, and I think the cost of putting the brakes on each carriage would not exceed more than from £5 to £10.

"Any effectual plan for increasing the safety of railway travelling is, in my mind, of such vital importance, that I prefer laying my schemes open to the world, to taking out a patent for it; and it will be a source of the greatest pleasure to me to know that it has been the means of saving even one human

life from destruction, or that it has prevented one serious concussion."

In consequence of Mr. Stevenson's absence the invention (of which a beautiful model was exhibited) was not discussed, it being agreed that a special meeting should be called to consider the subject.

The consideration of Mr. Buckle's experiments on fan blasts (see Mining Journal of 22d May) now exciting considerable interest, was then resumed. The chief object of Mr. Buckle was to show that the present fan blasts were imperfect in construction and expensive in operation. He proposed, as the result of experiments extending over a period of nine years, to have a series of fans, revolving in such a way as that the blast of air thrown from one would be communicated to each. He also showed the advantages of having a large inlet pipe; by these means he estimated that not only would the blast be stronger with less horse power, but it would also be uniform—thus improving the quality of the iron, as well as producing it at a cheaper rate.

Several of the members took part in a discussion which arose on a purely theoretical question, as to the laws by which air was regulated; and at the close, a vote of thanks was given to Mr. Buckle.

Papers on various engineering subjects were then promised by several of the members, and the meeting adjourned.

THE COMMERCE OF NEW ORLEANS AND OF THE ERIE CANAL.

The Albany Argus has a statement of the commerce of New Orleans for the year ending 31st August, which enables us to compare the movement from the interior to that city, of some of the principal articles of breadstuffs, with the movements of the same articles to tide water upon our State canals. This statement will serve to disabuse the minds of many who entertain the idea that in this branch of our commerce, New Orleans far exceeds that of our canals. Indeed, we have heard it said by those who no doubt had perfect belief in the truth of their statements, "that it was no uncommon thing to see 500,000 bushels of corn afloat in New Orleans, the result of one day's receipts from the interior." That the commerce of N. Orleans, in the article of breadstuffs, has rapidly increased within the last twelve months, under the active demand for Europe, no one will doubt; but it will not be found to show a greater increase than that of our State canals.

In the first place we will present the receipts at New Orleans from 1st September, 1846, to 1st September, 1847, of flour, wheat and corn, and of the same articles delivered from the Erie canal at tide water, from 1st May, 1847, to 1st September, 1847, a period of only four months.

Eric canal. New Orleans.
Flour, 2,392,508 bbls. 1,617,695 bbls.
Wheat, 2,533,589 bush. 1,670,000 bush.
Corn, 4,504,985 " 7,065,000 "

Here we find, in the space of four months the receipts of flour are greater by 750,000 barrels, and of wheat by 850,000 bush. than

the receipts at New Orleans for the whole of the year. The article of corn is less by 2,500,000 bushels.

We will now present the statement of the articles of flour, wheat and corn, delivered from the Erie canal at tide water, from the 1st September, 1846, to the 1st September, 1847, embracing the entire canal season for one year, and with it the statement of the same articles received at New Orleans during the same period.

Eric canal.	New Orleans.
Flour, 3,858,300 bbls.	1,617,675 bbls.
Wheat, 4,599,272 bush.	1,670,000 bush.
Corn, 5,083,318 "	7,065,000 "

We have here the business of one year at the two points, although that of the Erie canal embraces a period of but seven months: still it is the entire season. The difference in the receipts at the two points in the articles of flour and wheat is very great; and the excess of corn received at New Orleans over the quantity from the Erie canal is also very large. The increase however in the receipts of corn from the Erie canal has been greater than at New Orleans, having risen to the enormous quantity of 5,000,000 bushels in one year, the previous seasons sending forth merely a nominal amount, seldom exceeding 300,000 or 400,000 bushels; while at New Orleans, the receipts as far back as 1837 and 1838, have not fallen much below 450,000 bushels in any one season.

These are facts showing the success of our canal commerce in the single article of breadstuffs laboring as it does under an ice embargo for a period of nearly one half the year. Still that commerce increases yearly, and future seasons will show the ability of our system to maintain a successful rivalry with N. Orleans for the treasures of the fertile west.

Anthracite Coal for Locomotives.

We find in the Journal of the Franklin Institute for August last, the following article, by Professor W. R. JOHNSON. The growing importance of the subject, and the reputation of the writer, will ensure an attentive perusal of his views in relation to it; and we therefore give it entire.

At the monthly meeting of the Franklin Institute, held June 17th, 1847, the following remarks on the use of anthracite in locomotives, were made by PROFESSOR W. R. JOHNSON.

Since the attainment of so complete a success, in using anthracite under the boilers of stationary engines, and on board of all our principal river and sound steam vessels on the Atlantic coast, it has become a subject of much inquiry, to determine why so little success has attended the efforts to introduce it into general use upon railroads. Various trials, on the Columbia road, and others on the Reading road, have, it is understood, been attended with so little promise of advantage, as to cause, at present, the abandonment of that fuel, and an adherence to wood, as the only available material. The cost of wood, alone, to the Reading railroad, during the last year, is put down, in the late annual report, at \$202,061, and, as the total quantity of coal brought to market over the road, was 1,188,258 gross tons, we have, after deduct-

ing the wood required for passenger and freight trains, an expense of \$191,569, for the wood required to haul that quantity of coal 94 miles, and to take back the empty cars. It is true, that the whole of this coal did not reach tide water, but the computation is based upon the fact, stated in the report of the company, that the cost of wood, "per round trip of 188 miles," to haul 360 tons of coal, the above distance, and "back with empty cars," was 14.92 cords, costing \$58.04. It is estimated, by the president of the railroad company, that the introduction of anthracite, instead of wood, would save the company \$125,000 per annum. Should it save half this sum, it is evident that great outlays, to effect the purpose, would be warranted, and, consequently, the efforts heretofore made would be fully justified. Mr. Nicolls, the engineer, and general superintendent of the Reading road, has been, for some time, engaged in an effort to accomplish this object, by placing the engine and boiler on separate carriages, with a view to an enlargement of the fire surface of the latter. Mr. N. has, in fact, used an ordinary locomotive, to which he has attached, on a separate truck, a boiler 16 feet long, and 4½ feet wide, with a semi-cylindrical arch running the whole length. This is connected by jointed pipes, with the engine. The blast is created by a fan, driven by a small engine. The escape steam is thrown into what was the original boiler of the locomotive engine, which is still retained, for the double purpose of serving as a *condenser*, and of making weight on the driving wheels. If this plan of condensation shall be found available, much time will be saved, which is now consumed at water stations, as a large portion of the water will be constantly circulating.

So important to the Reading railroad, has this item of expenditure of fuel become, that, during the past year, efforts have been made by the company to manufacture an artificial fuel, with a basis of anthracite, as a substitute for wood. In this, they are understood to have so far succeeded, as to have made some trips with it. But still the desideratum is the use of anthracite alone.

Having several times, within seven or eight years, witnessed the exclusive use of anthracite, in all the locomotives on the Beaver Meadow and Hazleton railroads, making round trips of thirty or forty miles, I have felt much interest in tracing the causes of ill success elsewhere.

From all the inquiries which I have been able to make, the following appear to be regarded as the chief impediments to the use of anthracite in locomotives.

1. The want of rapid ignition, and free, lively combustion.

2. The intense, concentrated, local heat, which is said to destroy the grate bars, to attack the rivets and laps of the fire box, and even to cause blisters to rise in the plates of which it is composed; and, finally, to fuse the ashes into a troublesome clinker.

3. The sharp, angular particles of coal, projected by the violent, fitful blast of the escape steam, obliquely into the ends of the

per tubes, cuts them away within a few inches of the fire end. In the upper range of tubes, it is the upper side which is chiefly attacked, and, as might be anticipated, in the lower ranges, the lower sides are most worn away. The effect of this cutting is usually limited to four or six inches of the length of the tubes.

4. The difficulty of fitting in iron tubes, so as to make perfect joints, and, at the same time, avoid irregularity in the form of the heads, and loosening one tube while another is fastened.

As the first of the above difficulties, the want of proper activity in the fire, has been completely overcome in our steamboats, by the use of a steady fan blast, it seems that an equivalent blast in the locomotive ought to produce the same effect. The irregular, fitful current, generated by the waste steam, is not in all respects equivalent to the blast of a fan, but when that blast is equalized, by projecting the escape steam, first into a receptacle of considerable magnitude, and then thro' a number of small pipes, equally distributed over the area of the chimney, the blast is so nearly equable, as to answer completely the purpose of sustaining the fire in brisk and uniform activity. This method of disposing of the escaping steam, originally invented by Mr. Gurney, and applied in common road engines, to prevent the frightening of horses, by the sudden, violent belching sound, was first introduced here by Mr. Hopkins Thomas, now of Beaver Meadow, while a workman in the employ of Messrs. Eastwick & Harrison. His object was a steady blast, not the mere avoidance of disagreeable noise.

The steam box used to equalize the draught, is cylindrical, 12 inches in diameter, and 11 inches deep; two tubes, each three inches in diameter, flanged at the opposite ends to the steam chests of the two cylinders of the locomotive, support the box in the interior of the dust chamber, and convey the escape steam to its centre. A lid, ground to fit the top of the steam box, has 18 jet pipes, rising two or three inches from its upper surface, drawn in at the top to a diameter of half an inch. These are placed just beneath the base of the chimney, and their purpose is to distribute the escaping steam throughout the chimney, and, by limiting, to some extent, the rapidity of flow, to maintain within the box a pressure approaching to uniformity.

Messrs. Eastwick & Harrison founded, on a division of the receptacle, into two parts, a patent, which they applied in some engines built by themselves. But as this evidently tended to make the action of the steam upon the air of the chimney, in a degree partial and fitful again, the Beaver Meadow and Hazleton companies discarded this modification.

For the last eight or nine years, the draught is ample, the combustion regular, and the evaporation vigorous and well sustained. The fire is, of course, kindled with wood, and when this is well ignited, anthracite is added by little at a time, usually not more than a single shovel full, and in lumps, com-

monly not above six inches in diameter. If larger than this, they would remain too long in mass, dark and ineffectual; if small egg or nut coal alone were used, it would, it is alleged, by the jarring of the locomotive, spread over the whole fire at once, and check the evaporation. While under way, the bed of coal under the grate is kept at a thickness of five, or at most, six inches. When fresh coal is added, care is taken, that a single shovel full only is put on at once, and that this is thrown on the part which appears thinnest. Much experience in watching the indications of a manometre, while generating steam by anthracite, enables me fully to appreciate the importance of these practical precautions. In some of the attempts to use anthracite on the Reading railroad, a bed of 18 inches thick is said to have been allowed to accumulate on the grate. In such cases, the whole engine is said to have become excessively overheated, and a flame to have passed out at the chimney. This is easily understood, when we consider that, in passing through so thick a mass of hot coal, the carbonic acid at first formed (CO_2) by taking up a second proportional of carbon, becomes $CO+CO_2$, or two proportionals of carbonic oxide. The atmospheric air to ignite this compound, gains admittance partly through the chinks of the fire door, and the dust box door, and is partly found near the chimney top, where the intermitting blast through a single jet pipe, keeps the chimney alternately receiving and emitting air.

The second evil, that resulting from the highly concentrated heat, has been found much more serious than the preceding. Grate bars were burned out in a few weeks. Capt. A. H. Van Cleave, who had charge of the Beaver Meadow road, states that, at one period, wrought iron bars were substituted for cast, but that it required two smiths' fires to be in constant employ, to make grate bars for four locomotive engines. The secret of preventing this occurrence, was stated by a gentleman at Hazleton, to have been discovered by accident. A boulder, which had rolled from a slope upon the track of the railroad, tore off the ash box of the first engine which passed. As the damage did not interfere with the running of the engine, and as it was not convenient for some days to return to the machine shop, it was permitted to continue its trips for some days, without an ash box. The overheating and wasting of grate bars were so manifestly obviated during the time, as to attract immediate attention. Ash boxes were successively removed from other engines, and, from the adoption of this alteration to the present time, the destruction of grate bars has ceased to be a source of serious inconvenience. A set in the locomotive Franklin, were put in in June, 1846, and were in use, and in good order, at the end of May, 1847.

It may be supposed that the wooden superstructure of the road, and particularly that of bridges, would be endangered by the constant falling of sparks. In the main, it may be said, that this evil at length cures itself, for both road and bridges, except the rails

become covered with a stratum of cinder and fine particles of coal, which effectually defends all beneath from danger of igniting by particles of hot matter from the grate. Unlike particles of ignited charcoal, these are, from their very weight, not liable to be easily raised and blown about by the currents of air created by the cars, which pass over them after they reach the road. Hence the only precaution which has been found necessary, is to place two sheets of iron, one on each side of the bottom of the fire box, extending downwards about nine inches, and sloping inwards, to confine the falling cinders to the central part of the track. At first a watch was established at the bridges, but when the roadway became covered with cinder, there was found to be very little danger from this source. The Hazleton and Beaver Meadow roads have wooden rails, laid with flat iron bars; where edge or T rails are used, the danger would be manifestly less than in the case of these roads, which have so long used anthracite without detriment.

The concentrated heat of anthracite fires, generally affects injuriously only the laps and rivets of the fire box, unless the iron of that part of the boiler be of inferior quality. Hence the importance of selecting the very best of iron for the fire box, and the probable utility, as suggested by Capt. Vancleave, of subjecting it to a high temperature before using any plate for this purpose, in order to detect blisters or imperfect weldings, if such exist in the interior. The number of pieces used in the lower part of a fire box, ought to be the least possible, and the horizontal laps ought not to have their edges presented downwards to the action of the rising flame. I see no practical difficulty in the way of rolling sheets 18 inches wide, long enough to form the entire circuit of the lower part of a fire box. Above that height there would be no danger from this peculiar action of the fire. Nor do I know of any serious objection to welding together the ends of such a sheet, especially if made three-eighths of an inch, or more, in thickness, and thus forming a band in which not a single joint or rivet should come in contact with the fire. All other parts of the boiler would still be made in the ordinary manner.

The locomotive Lehigh commenced running on the Hazleton road in 1838. In 1844 it was found necessary to renew a space of about 18 inches in the lower part of the fire box, and this is the only repair which that part has undergone since the engine was put upon the road. I examined it in the latter part of May, 1847, and found the iron, to all appearance, sound and good, with no leak at the rivets, or elsewhere. Three or four of the upper rows of tubes in this engine have been in use since 1839, and the rest were renewed about two years ago.

To avoid the conversion of ashes into clinker, those anthracites should be selected, which are free from slaty plies, and which contain the least of sulphuret of iron, or other fusible impurities. Should any inconvenience be found from clinker on a prolonged trip, it could easily be removed at a watering

station, by means of a forked fire hook, adapted to that peculiar service. A small supply of wood may be carried for re-kindling, in case of unusual delays. But the experienced fireman will always be careful to clear coal and clinker from his grate, before he attempts a renewal with wood.* Grates may be hinged, with a view to the prompt discharge of their contents, and, with that facility, the re-kindling with wood may take place even without stopping the engine, especially if advantage be taken of a favorable grade of the road.

The third point of difficulty, that resulting from the cutting away of copper tubes, is fully obviated by the substitution of iron, with the farther advantage of economy in the first cost. But this brings us to the fourth and last difficulty—that of securing iron tubes to the heads of the boiler.

This has been attempted in several different ways. One consists in cutting a screw at each end of the tube, to enter corresponding threads cut in the heads of the boiler, and then rivetting over the projecting edges of the tubes. That on which Mr. Baldwin has founded a patent, consists in brazing a short piece of copper tube to each end of the iron one, and then connecting the former with the head of the boiler, in the same manner as he puts in copper tubes. But that which seems the most simple, and which is quite effectual, as proved at Beaver Meadow and Hazleton, for a course of years, is the turning off of the iron tubes, on the outside, at each end, in the form of the frustum of a cone, to the distance of seven-tenths of an inch, by which the thickness of the tube at the extremity is reduced about one-half. This conical part receives a ring of copper, cylindrical within, conical without, and about half an inch wide, which, after the iron tube has been inserted in its place, is driven on to its conical termination, filling the space between it and the edge of the aperture in the head of the boiler. This copper ring, by its wedging effect, tightens the iron tube, forms a close joint, and allows the edge of the iron tube to be slightly opened out, and riveted, to form a very perfect juncture. The language used in describing the result of this mode of fitting in the tubes, was, that the "joints never leaked a drop." In rare instances, the welding of a tube, (made by the same process as gas tubes,) is found slightly defective, but this does not long put a stop to the use of the engine, for a very little labor suffices to tap a screw in each end, and plug up a single defective tube, till a convenient opportunity occurs for its removal. To clear dust of anthracite from the tubes, a species of screw auger, with a sharp edge, like that of a chisel, is occasionally employed.

The quantity of anthracite commonly used in a round trip of 30 miles, on the Hazleton road, is from a ton to a ton and a half, hauling 35 to 40 cars, and conveying 100 to 120 tons of coal. The grades on this road are heavy,—60, 80, and 140 feet per mile,—all in the direction of the trade. The severest

* This, and the succeeding precaution, are suggested by Capt. Vancleave.

labor is, consequently, encountered, in taking back the empty trains. In two experiments, conducted by Capt. Vancleave, over the Beaver Meadow road, reducing its grades by Pambour's formula, to the condition of a level, he found that the seven ton engine required 1½ pounds of anthracite per ton, per mile, of freight and cars hauled, and the 13 ton engine took but one pound for the same labor. The small engine was subject to slipping of its wheels, on the high grades, which, of course, impaired the efficiency of its fuel.

Those who are most familiar with this subject, attribute to the early, persevering, and well directed efforts of the Hon. Samuel D. Ingham, formerly president of the Beaver Meadow railroad company, much of the credit of urging on to final success, the experiments which have proved so important to the interests of that coal region.

Great Western (Canada West) Railway Report.

Continued from page 600.

Appendix.

NOTE A.—Table of Distance in miles.

Divisions.	Mail road.	Railway.	Air line.
Niag. Falls to Hamilt'n.	49·50	42·10	41·23
Hamilton to London...	85·	75·84	74·20
London to Windsor....	115·50	109·95	108·54
Total.....	250·00	227·89	223·96

Linear Arrangement.

Division.	Curves in miles.				
	Tan- gent in miles.	Radius 11460 ft.	Rad- ius 6730 ft.	Rad- ius 2986 ft.	Rad- ius 1910 ft.
Eastern....	39·82		1·87		0·41
Central....	70·94	0·39	1·42	2·52	0·58
Western...	106·38	1·53	2·04		
Sarnia br...	47·24	1·59		1·02	
	264·38	3·53	5·33	3·54	0·99
					277·74

NOTE B.—Table of Gradients.

Denomination of grade.	Name of division.					Port Sar- nia brach.	Total Miles.
	East- ern.	Cent- ral.	West- ern.	Miles.	Miles.		
Level and under 5 ft. per mile.....	21·37	34·83	85·52	41·40	183·19		
5 to 10 feet per mile.	4·15	2·06	8·50	8·45	23·16		
10 to 20 feet per mile.	8·55	14·75	6·11			29·41	
20 to 30 feet per mile.	8·03	9·75	6·82			24·60	
30 to 40 feet per mile.		3·35	3·00			6·36	
45 ft. maximum west.		11·10				11·10	
Total.....	42·10	75·84	109·95	49·85	277·74		

NOTE C.

James L. Barton, Esq., of Buffalo, in his letters on lake commerce, to the chairman of the committee on commerce in the United States House of Representatives, under date of May 15, 1846, says, "The storms and tempests on the lakes (Erie, Huron, and Michigan) are as violent as on the Atlantic, and the dangers of navigating them is known and acknowledged by those who have tried both, to be equally as great, if not greater. The boisterous weather last fall was very destructive to lives and vessels, amounting to, as nearly as a careful account can make it, sixty lives lost, thirty-six vessels driven ashore, twenty of which became total wrecks; four foundered with entire loss of crews and cargoes, and producing a loss in the value of property of over two hundred thousand dollars. And it has suffered in losses, within the last five years, more than four hundred lives, and destruction and damage to steam-boats, vessels, and cargoes, more than one million of

dollars. Ruinous and destructive as the want of safe harbors is to our commerce, the difficulties are vastly increased from the almost impassable condition of the flats in Lake St. Clair. Here steamboats and vessels are daily compelled, in all weather, to lie fast aground, and shift their passengers, cargoes, and luggage, into lighters; exposing life, health, and property, to great hazard, and then by extraordinary heaving and hauling, are enabled to get over. Indeed, so bad has this passage become, that one of the largest steamboats, after lying two or three days on these flats, everything taken from her into lighters, was unable, with the powerful aid of steam, and everything else she could bring into service, to pass over!

avenues of communication with the fertile west, has exceeded the most sanguine estimates, and points with unerring certainty to its continued progress. The construction of the important canal around the Sault de St. Mary, a channel of one mile, thro' which must flow the vast mineral wealth of the Lake Superior region, will give additional value to the already great and increasing north western trade. The growth of the west is steadily and rapidly onward; and with this growth the commerce of the lakes, and the travel between the east and the west must keep pace. The following statements of the increase of the upper lake commerce can be relied upon, as they are made up at the custom houses, at the several parts of the entry, from undoubted authority.

The first sail craft upon Lake Erie was the sloop Detroit, of 70 tons, in 1796, and up to the declaration of war, in 1812, the total number of vessels of all descriptions afloat upon Lake Erie was twelve. The first year after the war (1816) the aggregate tonnage of sail craft upon the upper lakes was 2180, embracing about forty sail (two small schooners only, being over 100 tons burden.) The number of arrivals and departures at the port of Buffalo that season, amounted to only eighty—in 1818, when the first steamer was built, they reached 100. In 1846, the number of arrivals and departures at the same port was seven thousand seven hundred and fourteen, forming an aggregate of one million eight hundred and twenty-five thousand nine hundred and fourteen tons.

On the first of July, 1847, there were the following number and description of vessels owned and running on the lakes above Niagara Falls, as near as could be ascertained by the most careful and extensive research.

Number and names.	Aggregate tons.	Average tons.
81 steamers,	35,835	442
31 propellers,	10,295	332
63 brigs,	14,589	231
315 schooners,	47,738	152
490 total,	108,457	221

There was an increase of tonnage of about thirty-five per cent. in the last eighteen months. The total cost of the above vessels is estimated at six millions two hundred and forty thousand dollars, or one million five hundred and sixty thousand pounds—of which amount, over two millions of dollars, or fifty thousand pounds has been expended since January, 1846, in the construction of new vessels, and the repairing and enlarging old ones.

The following comparative statements of the exports from the upper lakes, will mark the rapid change that has taken place within a few years in the west.

Articles.	1835.	1845.	1846.
Flour, barrels,	86,933	717,466	1,280,897
Provisions, barrels,	6,562	68,100	99,398
Wheat, bushels,	98,071	1,354,990	3,611,224
Corn,	14,579	33,069	1,179,689

In addition to the above, the following articles passed through the Welland canal to Lake Ontario, from the west, and from the Canadian ports on Lake Erie.

Articles.	1845.	1846.	To July 1, '47.
Flour, barrels,	207,555	273,294	211,897
Provisions, bushels,	13,963	34,211	16,608
Wheat, bushels,	1,891,627	3,172,969	1,658,093
Corn,	22,092	461,933	445,100
Boards, feet,	11,584,096	14,855,065	13,848,921

The flour already shipped up to the 31st of July, 1847, exceeds that for the whole year last season.

PORT OF MILWAUKIE, WISCONSIN.

Wheat exported.	Flour exported.
1845, 95,500 bushels.	15,750 barrels.
1846, 213,448 "	15,756 "

The flourishing towns of Racine, Southport, and Little Fort, on the western shore of Lake Michigan, between Milwaukee and Chicago, will add their share towards swelling this immense amount of exports, and will compare favorably with Milwaukee, lying, as they do, directly in front of the best wheat-growing country in Wisconsin.

The arrivals and departures at this port, Milwaukee, for 1846, were:

Arrived.	Departed.	Total.
Steamers, 352	348	700
Propellers, 111	109	920
Brigs, 95	94	189
Schooners, 837	835	1672
1395	1386	2781

To show how rapidly the west is being settled and improved, we have only to note the change that has taken place in Wisconsin alone, in a few years.

In 1830 the population was	3,245
" 1836 "	11,686
" 1840 "	30,945
" 1842 "	46,678
" 1846 "	245,228
" 1847 in July estimated at	360,000

Up to 1840, Wisconsin imported their supplies of every kind, including provisions. In 1846 they fed themselves, supplied an army of over 100,000 new emigrants, and of their surplus remaining they exported through the lakes between three and four millions of dollars in value, mostly in agricultural products.

The lead and shot made in this State in 1846, and which principally sought a market, via the Mississippi, is known to have been very large.

Name of district.	Popula- tion.	Acrea of land culti- vated.	Houses	Grani- tew- saw shops.	Mer- chant Horses	Cattle.	Cattle.	Amount of estable pro- perty.
						Miles.	Miles.	
Niagara.....	49,883	181,334	4,700	67	103	262	12,620	8,902
Gore.....	50,632	298,234	5,409	106	172	236	10,986	6,396
Brock.....	30,000	101,00	1,903	25	65	57	4,006	3,760
London.....	52,170	168,485	2,619	59	92	83	6,586	6,019
Western.....	40,700	102,700	1,362	28	34	4,800	3,940	3,740
Wellington.....	27,057	133,375	1,277	57	62	3,683	5,843	10,182
Huron.....	14,983	90,355	187	12	17	4,482	7,09	2,519
Talbot.....	15,683	80,134	1,419	24	82	2,984	6,570	1,713
Total.....	291,068	1,085,727	19,176	378	802	46,594	38,753,88,271	34,883

Names of railways.	Length in miles.	Total cost in pounds currency.	Average cost per mile in pounds.	Thro' passengers.	Way passengers.	Miles run by trains.	Cost of running per mile in cents.	Rec'ts in pounds.	Expenses in pounds.	Net revenue in pounds.	Per cent. per an. profit on cost.	Per cent. of rec'ts for expenses.
Mohawk and Hudson.....	17	£265,298	£21,487	174,653	None.	61,872	661	10,499	18,015	18,500	36	36
Schenectady and Troy.....	17	160,385	8,019	57,793	4,996	33,713	661	10,494	18,015	18,500	36	36
Utica and Schenectady.....	78	547,376	7,017	134,663	87,155	67,600	100	107,059	41,955	63,144	12	39
Auburn and Syracuse.....	53	292,229	103,798	51,481	10,000	75	66,419	24,112	40,207	141	371	
Auburn and Rochester.....	78	168,809	6,493	96,675	9,134	61,660	75	20,759	11,541	18,218	104	38
Tonawanda.....	434	4,331	62,218	80,957	189,245	684	64	72,588	27,567	45,001	94	38
Albion and Buffalo.....	311	76,767	10,116	65,359	27,028	70,706	64	35,954	12,286	24,658	131	34
Buffalo and Niagara Falls.....	22	2,385	7,916	42,652	8,391	8,291	60	12,233	3,141	9,141	43	39
	71	377,580	5,661	8,188	4,882	4,882	10					
		£2,306,982	£823,948									

The above railways are mostly single track, with plate rail, (with the exception of two short ones,) but an iron rail is now being laid on those east of Rochester, which will cost £2,500, or \$10,000 per mile.

Total length 309 miles. Total cost £2,306,982 or \$9,227,928 dollars.

Average cost per mile, £6,252 or 25,008 dollars.

Average profit ten per cent. on the above railways, or 11 9/10ths per cent. on the railroads from Schenectady to Niagara Fall.

Average cost per mile for running the trains 71 cents.

Average per cent. of receipts for expense, 38%.

NOTE E.—Commerce of the Lakes.

The unprecedented increase of the commerce of the upper lakes, during the past twenty years, caused by the increase of population and opening of new

PORT OF CHICAGO, ILLINOIS.

Wheat exported.	Flour exported.
1845, 956,860 bushels.	13,750 barrels.
1846, 1,459,599 "	23,045 "
Increase, 509,739 "	9,295 "

NOTE F.—The Great Western Railway, the Welland, Gore, Brock, London, and Western Districts, and connections to the movements in the District for the year 1846.

NOTE G.—*Port of Hamilton.*

The following table is obtained from the collector of customs for the port of Hamilton, and comprises a few of the principal articles of export, for the years 1845, 1846, and a part of the year 1847.

Articles.	Year 1845.	Year 1846.	Jan. 1 to Aug. 1, 1847.
Flour, barrels.	119,388	155,298	136,090
Pork, beef, & spirits, bbls.	4,614	8,993	5,793
Butter and lard, kegs and barrels.	271	688	994
Fish, barrels.	560	657	22
Wheat, Indian corn, barley, and rye, bushels.	5,693	13,583	981
Hewn timber, feet.	224,500	154,000	93,123
Boards, feet.	135,152	16,750	486,400
Staves, feet.	314,000	111,137	99,500

WELLAND CANAL.

Statement of some of the principal articles of property passed through the Welland canal during the season of 1845, 1846, and of 1847 from the commencement of navigation until the first of July.

Articles.	1845.	1846.	'47 to July 1.
Wheat, bushels.	1,891,637	3,172,969	1,658,093
Corn,	22,092	461,933	445,000
Beef and pork, bbls.	13,962	31,211	16,608
Flour, barrels.	207,555	273,284	211,897
Ashes,	3,062	4,677	1,141
Salt,	219,722	237,811	51,391
Boards, feet.	11,584,096	14,835,051	3,848,921
Hewn timber, feet.	1,200,824	1,852,563	1,007,082
Staves.	5,119,876	2,591,511	452,500
Shingles.	299,500	389,500	
Passengers.	3,092	3,743	

TONNAGE.

	1845.	1846.	1847, (to July 1.)
Number of schooners.	2,041	2,335	1,034
" steamboats and propellers.	422	400	188
Number of scows.	1,147	1,170	476
" rafts.	104	120	39

Tonnage..... 312,571 385,969 181,226

A portion of the above returns comprise imports and exports from the Gore District, by the Grand river, and from ports on Lake Erie, Canada side.

NOTE H.—*Western Railway, Massachusetts.*

Number of barrels of flour transported from Albany to Troy.

Year.	To Boston.	To other stations.	Total number.
1845.	181,796	146,386	328,183
1846.	231,920	163,919	396,839

Number of tons transported in eleven months of 1846.

Thro' from Boston to Albany, westward.	8,358
All other tonnage.	40,251

Total going west..... 48,609

Thro' from Albany to Boston, eastward.	36,403
All other tonnage.	81,382

Total going east..... 117,785

Total number of tons moved..... 166,394

Equivalent number of tons carried 1 mile, 15,748,223

Equivalent number of tons carried over the whole road..... 100,950

Number of miles run by locomotives in eleven months of 1846.

For passenger trains..... 215,309

For freight trains..... 313,259

For gravel trains, etc..... 45,328

Total number of miles run..... 573,956

The income of the road for eleven months to November 30, 1846, has been,

Passengers..... \$389,861 42

Freight..... 459,365 18

Mails, express, etc..... 29,191 29

Total income..... \$878,417 87

Expenses for the same period have been as follows:—

Road repairs.	\$80,293 25
Engine repairs.	48,909 25
Car repairs.	40,544 06
Building, etc.	16,195 03
Transportation expenses.	202,524 45
General expenses.	24,213 77
	412,679 80

Net income..... \$465,738 09

The amount of earnings for December, 1846, have been \$76,000, which, added to the receipts for eleven months, will make the gross receipts of 1846, \$954,417 89, and an increase over the year 1845, of \$140,937 89.

NOTE I.

When the railways on the most direct routes from Chicago to Boston and New York shall all be completed and furnished with heavy iron rails the traveller can pass from the former to New York in thirty-four hours, and in thirty-six hours to Boston, including all necessary detentions.

Miles.	Conveyance.	Hours.
From Chicago to Detroit, 286	Day train	10
" Detroit to Niagara Falls.	Night train	8
From Niagara Falls to Rochester.	" " " " 21	21
From Rochester to Albany, 250	Day " " " 5	34
" Albany to N. Y. 150	" " " " 5	2
" Chicago to N. Y. 987	" " " " 34	
" Albany to Boston, extra.	" " " " 52	
To Boston from Chicago, 1039	miles in	36

On the completion of the Great Western, and the Syracuse and Oswego railways, the passage may be made from New York to Detroit, via Oswego and Hamilton, in thirty-six hours; from New York to Chicago in forty-eight hours; from New York to the Mississippi in sixty hours; and all the way to New Orleans in seven days, as follows:

Miles.	Conveyance.	Hours.
From N. Y. to Albany 150	Night steamer	8
" Albany to Oswego 168	Day railway	8
" Oswego to Hamilton, 160	Night steamer	12
" Hamilton to Detroit, 185	Day railway	7
" Detroit to New Buffalo 240	" " " " 10	
From New Buffalo to Chicago.	45 Night steamer	3
Total..... 948		48

From Chicago to Galena in 10 hours, and by steamboat to New Orleans in five days.

Weather Table kept at Toronto, Showing the Amount of Rain, Snow, and Fair Weather, during each year, from 1840 to 1846, Inclusive.

Year.	No. of wet days.	No. of perfectly fair days.	Toronto Bay frozen over.	Ice gone from Toronto Bay.
1840	97	56	213	6th December.
1841	80	46	239	18th December.
1842	89	55	221	Not noted.
1843	83	73	209	13th Dec'r, but broke up again.
1844	106	41	219	18th December.
1845	97	47	221	3d December.
1846	103	43	219	14th December.

NOTE.—Any day on which rain falls, whether more or less, is noted as a wet day. The same observation applies to snow.

Severe cold seldom lasts more than three days successively during the winter; the weather then moderates for a few days, succeeded by a sharp frost. It is never so severe in Canada West as to put a stop to out door employment.

Greatest depth of snow three feet, seldom over two feet, the average depth about one foot.

Name of railway.	Year.	Amount of net revenue.	Year.	Amount of net revenue.
Boston and Lowell.	1840	\$22,450	1845	\$44,956
Boston and Worcester.	1842	45,174	1845	59,431
Western.	1842	61,577	1845	10,715
Eastern.	1842	37,520	1845	58,327
Boston and Providence.	1842	30,911	1845	49,457
Boston and Maine.	1842	19,160	1845	33,245
Nashua and Lowell.	1842	9,903	1845	14,091
New Bedford and Taunton.	1842	8,105	1845	12,209
Utica and Schenectady.	1847	48,196	1845	65,879
Utica and Syracuse.	1843	23,568	1845	40,297
Auburn and Rochester.	1843	22,073	1846	16,629
Camden and Amboy.	1843	45,250	1846	52,928
Columbia and Philadelphia.	1845	57,339	1846	61,500
	1845	106,750	1846	112,317
	1846	64,979	1846	64,441

Year.	Jan.	Feb.	March.	April.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.
1840	18°	39°	30°	43°	54°	60°	60°	55°	50°	45°	36°	25°	44° 10'
1841	18°	39°	30°	43°	54°	60°	60°	55°	50°	45°	35°	25°	44° 5
1842	18°	39°	30°	43°	54°	60°	60°	55°	50°	45°	35°	25°	44° 3
1843	18°	39°	30°	43°	54°	60°	60°	55°	50°	45°	35°	25°	44° 2
1844	18°	39°	30°	43°	54°	60°	60°	55°	50°	45°	35°	25°	44° 1
1845	18°	39°	30°	43°	54°	60°	60°	55°	50°	45°	35°	25°	44° 0
1846	18°	39°	30°	43°	54°	60°	60°	55°	50°	45°	35°	25°	43° 44
1847	18°	39°	30°	43°	54°	60°	60°	55°	50°	45°	35°	25°	42° 44

Mean Height of Thermometer.

Observations made at Toronto.

Yearly mean.

1840

1841

1842

1843

1844

1845

1846

1847

1848

1849

1850

1851

1852

1853

1854

1855

1856

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1860

1861

1862

1863

1864

1865

1866

1867

1868

1

NOTICE TO CONTRACTORS.—ANDROS COGGIN AND KENNEBEC RAILROAD. Proposals will be received at the Treasurer's Office in Waterville, until the 25th of September next, inclusive, for the Grading and Masonry of the 3d Division of this road, extending from East Readfield to Waterville, about 20 miles.

Also, for such sections of the 2d Division as shall not be previously disposed of.

Profiles will be ready for examination on the 20th of September, and any information respecting the line can be obtained on application to the resident Engineers.

On the 24th of September the Engineer will be at Winthrop, and will be prepared to accompany contractors over the line of the road.

HOBART CLARK, Agent A. & K. R. R.
EDWARD APPLETON, Engineer.

Railroad Office Lewiston,
August 25th, 1847.

3:37

NOTICE TO CONTRACTORS.—GREAT WESTERN RAILWAY, CANADA WEST. Sealed proposals will be received until the 1st day of next October, at the Office of the Great Western Railway Company, for the Grading and Masonry of the Western Division, extending from London to Windsor, a distance of one hundred and ten miles; also for the branch to Port Sarnia, forty-five miles in length.

Plans and Specifications of the work can be examined at the Engineers' Office, in Hamilton and London, on and after the 15th of September.

C. B. STUART, Engineer.
Hamilton, July 30, 1847.

2m32

TO RAILROAD COMPANIES AND BUILDERS OF MARINE AND LOCOMOTIVE ENGINES AND BOILERS.

PASCAL IRON WORKS.

WELDED WROUGHT IRON TUBES

From 4 inches to 4 in calibre and 2 to 12 feet long, capable of sustaining pressure from 400 to 2500 lbs. per square inch, with Stop Cocks, T's, L's, and other fixtures to suit, fitting together, with screw joints, suitable for STEAM, WATER, GAS, and for LOCOMOTIVE and other STEAM BOILER FLUES.



Manufactured and for sale by
MORRIS, TASKER & MORRIS.
Warehouse S. E. Corner of Third & Walnut Streets,
PHILADELPHIA.

SPRING STEEL FOR LOCOMOTIVES. Tenders and Cars. The Subscriber is engaged in manufacturing Spring Steel from 1 $\frac{1}{2}$ to 6 inches in width, and of any thickness required: large quantities are yearly furnished for railroad purposes, and wherever used, its quality has been approved of. The establishment being large, can execute orders with great promptitude, at reasonable prices, and the quality warranted. Address

JOAN F. WINSLOW, Agent,
Albany Iron and Nail Works,
1 $\frac{1}{2}$

RAILROAD IRON.—100 TONS ENGLISH, R. 60 pounds per lineal yard, of best manufacture, and expected to arrive about 1st October by London packets. Apply to

DAVIS, BROOKS & CO.,
68 Broad Street, New York.

1m37
FOR SALE—300 TONS (10 MILES) FLAT Bar Rail, in parcels or wholesale—section 2 $\frac{1}{2}$ inches wide by $\frac{1}{2}$ thick. The Rail has been several years in use, and its quality thoroughly tested—none but perfect bars delivered. Address

I. R. TRIMBLE
Wilmington, Del.

1m37
RAILROAD IRON.—500 TONS OF BEST quality Bridge Rail, 53 pounds to the yard, to arrive, and for sale by **A. & G. RALSTON,** No. 4 South Front Street, Philadelphia.

Also, a 2-Hand Locomotive Engine, of Baldwin's make, for sale low.

September 8, 1847.

3:37

PATENT RAILROAD, SHIP AND BOAT SPIKES. The Troy Iron and Nail Factory keeps constantly for sale a very extensive assortment of Wrought Spikes and Nails, from 3 to 10 inches, manufactured by the subscriber's Patent Machinery, which after five years' successful operation, and now almost universal use in the United States (as well as England, where the subscriber obtained a patent) are found superior to any ever offered in market.

Railroad companies may be supplied with Spikes having countersink heads suitable to holes in iron rails, to any amount and on short notice. Almost all the railroads now in progress in the United States are fastened with Spikes made at the above named factory—for which purpose they are found invaluable, as their adhesion is more than double any common spikes made by the hammer.

All orders directed to the Agent, Troy, N. York will be punctually attended to.

HENRY BURDEN, Agent.

Spikes are kept for sale, at Factory Prices, by **J. Townsend, Albany**, and the principal Iron merchants in Albany and Troy; **J. I. Brower, 229 Water St., New York**; **A. M. Jones, Philadelphia**; **T. Janiers, Baltimore**; **Degrard & Smith, Boston**.

** Railroad Companies would do well to forward their orders as early as practicable, as the subscriber is desirous of extending the manufacturing so as to keep pace with the daily increasing demand.

3:45

MANUFACTURE OF PATENT WIRE ROPE AND CABLES FOR INCLINED PLANES, STANDING SHIP RIGGING, MINES, CRANES, TILLERS ETC. by **JOHN A. ROEBLING, Civil Engineer,**

Pittsburgh, Pa.

These Ropes are in successful operation on the planes of the Portage Railroad in Pennsylvania, on the Public Slips, on Ferries and in Mines. The first rope put upon Plane No. 3, Portage Railroad, has now run 4 seasons, and is still in good condition.

2v19 1y

FRENCH AND BAIRD'S PATENT SPARK ARRESTER.

TO THOSE INTERESTED IN RAILROADS, RAILROAD DIRECTORS AND MANAGERS are respectfully invited to examine an improved Spark Arrester recently patented by the undersigned.

Our improved Spark Arresters have been extensively used during the last year on both passenger & freight engines, and have been brought to such a state of perfection that no annoyance from sparks or dust from the chimney of engines on which they are used is experienced.

These Arresters are constructed on an entirely different principle from any heretofore offered to the public. The form is such that a rotary motion is imparted to the heated air, smoke and sparks passing through the chimney, and by the centrifugal force thus acquired by the sparks and dust they are separated from the smoke and steam, and thrown into an outer chamber of the chimney through openings near its top, from whence they fall by their own gravity to the bottom of this chamber; the smoke and steam passing off at the top of the chimney, through a capacious and unobstructed passage, thus arresting the sparks without impairing the power of the engine by diminishing the draught or activity of the fire in the furnace.

These chimneys and arresters are simple, durable and neat in appearance. They are now in use on the following roads, to the managers and other officers of which we are at liberty to refer those who may desire to purchase or obtain further information in regard to their merits:

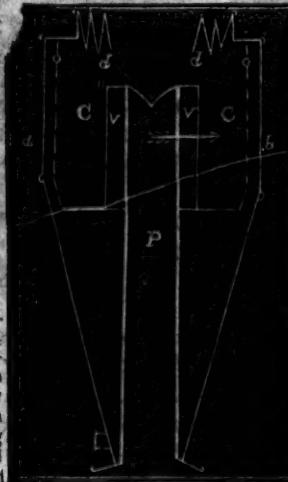
R. L. Stevens, President Camden and Amboy Railroad Company; Richard Peters, Superintendent Georgia Railroad, Augusta, Ga.; G. A. Nicolls, Superintendent Philadelphia, Reading and Pottsville Railroad, Reading, Pa.; W. E. Morris, President Philadelphia, Germantown and Morris-town Railroad Company, Philadelphia; E. B. Dudley, President W. and R. Railroad Company, Wilmington, N. C.; Col. James Gadsden, President S. C. and C. Railroad Company, Charleston, S. C.; W. C. Walker, Agent Vicksburgh and Jackson Railroad, Vicksburgh, Miss.; R. S. Van Rensselaer, Engineer and Sup't Hartford and New Haven Railroad; W. R. M'Kee, Sup't Lexington and Ohio Railroad, Lexington, Ky.; T. L. Smith, Sup't New Jersey Railroad Trans. Co.; J. Elliott, Sup't Motive Power Philadelphia and Wilmington Railroad, Wilmington, Del.; J. O. Sterns, Sup't Elizabethtown and Somerville Railroad; R. R. Cuyler, President Central Railroad Company, Savannah, Ga.; J. D. Gray, Sup't Macon Railroad, Macon, Ga.; J. H. Cleveland, Sup't Southern Railroad, Monroe, Mich.; M. F. Chittenden, Sup't M. P. Central Railroad, Detroit, Mich.; G. B. Fish, President Long Island Railroad, Brooklyn.

Orders for these Chimneys and Arresters, addressed to the subscribers, care Messrs. Baldwin & Whitney, of this city or to Hinckley & Drury, Boston, will be promptly executed.

N. B.—The subscribers will dispose of single rights, or rights for one or more States, on reasonable terms.

Philadelphia, Pa., April 6, 1844.

** The letters in the figures refer to the article given in the Journal of June, 1844.



PATENT HAMMERED RAILROAD, SHIP AND BOAT SPIKES. The Albany Iron and Nail Works have always on hand, of their own manufacture, a large assortment of Railroad, Ship and Boat Spikes, from 2 to 12 inches in length, and of any form of head. From the excellence of the material always used in their manufacture, and their very general use for railroads and other purposes in this country, the manufacturers have no hesitation in warranting them fully equal to the best spikes in market, both as to quality and appearance. All orders addressed to the subscriber at the works, will be promptly executed.

JOHN F. WINSLOW, Agent.

Albany Iron and Nail Works, Troy, N. Y. The above spikes may be had at factory prices, of Erastus Corning & Co., Albany; Hart & Merritt, New York; J. H. Whitney, do.; E. J. Eting, Philadelphia; Wm. E. Coffin & Co. Boston. ja45

MACHINE WORKS OF ROGERS, Ketchum & Grosvenor, Patterson, N. J. The undersigned receive orders for the following articles, manufactured by them of the most superior description in every particular. Their works being extensive and the number of hands employed being large, they are enabled to execute both large and small orders with promptness and despatch.

Railroad Work.

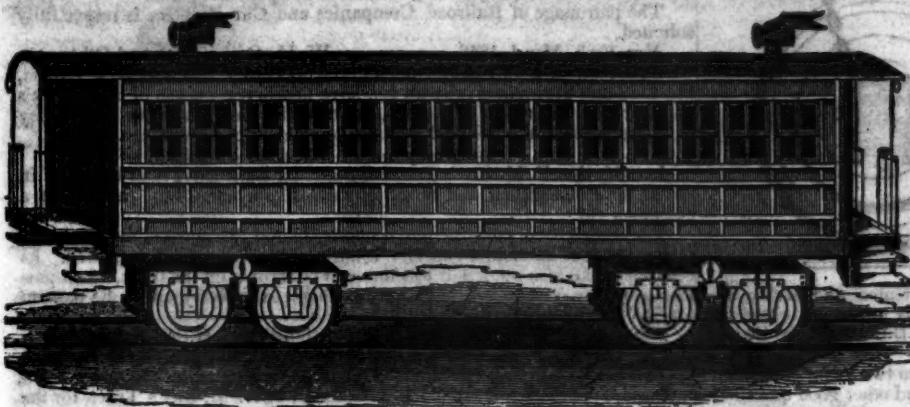
Locomotive steam engines and tenders; Driving and other locomotive wheels, axles, springs & flange tires; car wheels of cast iron, from a variety of patterns, and chills; car wheels of cast iron with wrought tires; axles of best American refined iron; springs; boxes and bolts for cars.

Cotton, Wool and Flax Machinery of all descriptions and of the most improved patterns, style and workmanship.

Mill gearing and Millwright work generally; hydraulic and other presses; press screws; callenders; lathes and tools of all kinds; iron and brass castings of all descriptions.

ROGERS, KETCHUM & GROSVENOR, a45 Paterson, N. J., or 60 Wall street, N. York.

DAVENPORT & BRIDGES' CAR WORKS, CAMBRIDGEPORT, MASS.



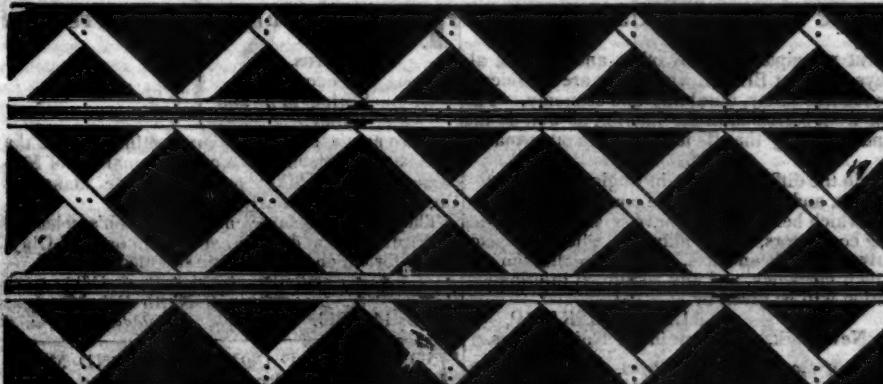
Manufacture to Order, Passenger and Freight Cars of every description, and of the most improved pattern; also furnish Snow Ploughs and Chilled Wheels of any pattern and size. Forged Axles, Springs, Boxes and Bolts for Cars at the lowest prices.

All orders punctually executed and forwarded to any part of the country.

Our Works are within fifteen minutes ride from State street, Boston—Omnibuses pass every fifteen minutes.

1y25 28 Platt street, New York.

THE HERRON RAILWAY TRACK,



As seen stripped of the top ballasting

A GOLD MEDAL AWARDED THE INVENTOR BY THE AMERICAN INSTITUTE.

THE UNDERSIGNED RESPECTFUL-
ly invites the attention of Engineers, and Railroad Companies, to some highly important improvements he has recently made in the Herron system of Railway structure. These improvements enable him to effect a very large reduction in the quantity of Timber, and cost of construction, without impairing the strength of the Track, or its powers of resisting frost, while they secure additional features of excellence in the Drainage and facility of making Repairs.

The above cut represents the "Herron Track" as it is laid on the Philadelphia and Reading, and on the Baltimore and Susquehanna Railroads. The intersection of the sills of the trellis are 5 feet from centre to centre, while in the new construction they are only 2½ feet. This renders the string piece unnecessary, thus removing the only objectionable feature found in the Track.

The result of experience has proved that all Tracks constructed with longitudinal timbers, such as mud sills, and more especially, the continuous bearing string pieces retain the rain water that falls between the Rails, which, being thus confined, settles along those timbers, and accumulating in quantity flows rapidly along them on the descending grades, washing out the earth from under the timber, and frequently causing large breaches in the embankments of the road. Whereas all water intercepted by the oblique sills of the trellis, is discharged immediately into the side ditches.

In the 5 foot plan, the Track occupies a Road bed nearly 11 feet wide, while the new construction takes

but 8 feet; the timber being more concentrated under the Rails. A block of hard wood, about 2 feet long and 15 inches wide, is introduced into a square of the trellis for the purpose of giving an additional and effectual support to the joints of the Rails, which rest upon it. Should these joint blocks become chafed and worn by the working, and imbedding of the chairs, as is now the case on all Railroads, they can be readily replaced without any derangement of the timbers liable to wear.

The following is a general estimate of its cost near the seaboard. In the interior it will be considerably less.

ESTIMATE OF THE PROBABLE COST OF ONE MILE.		
4,224 Timbers, 11 ft. long, 3 x 6 inches =		\$686 96
68,696 ft. b.m., at \$10 =		
587 Oak joint blocks 2 ft. x 3 x 15 in. =		57 24
4,403 ft. b.m., at \$13 =		
13,000 Spikes = 2,250 lbs. at 4½ cts.	101 25	
Workmanship free of patent charge		600 00

Cost of one mile including the laying of the Rail \$1,445 45

He has made other important improvements, which will be shown in properly proportioned models, that give a much better idea of the great strength of the Track than a drawing will do.

Sales of the Patent right to all the distant States will be made on liberal terms.

JAMES HERRON,
Civil Engineer and Patentee.
No. 277 South Tenth St., Philadelphia.

LAP—WELDED
WROUGHT IRON TUBES
FOR
TUBULAR BOILERS,
FROM 1 1-4 TO 6 INCHES DIAMETER,
and
ANY LENGTH, NOT EXCEEDING 17 FEET.

These Tubes are of the same quality and manufacture as those so extensively used in England, Scotland, France and Germany, for Locomotive, Marine and other Steam Engine Boilers.

THOMAS PROSSER,

Patentee.

1y25 28 Platt street, New York.

RAILROAD IRON. MOUNT SAVAGE IRON WORKS

THIS Company are prepared to execute orders for RAILROAD IRON, of any pattern, and equal in point of quality to any other manufactured.

Address J. M. HOWE,
Pres't. Mt. Savage Iron Works,
Dec. 25, 1y*

Maryland.

ENGINEERS' AND SURVEYORS'
INSTRUMENTS MADE BY
EDMUND DRAPER,
Surviving partner of
STANCLIFFE & DRAPER.



No 23 Pear street,
1y10 below Walnut,
Philadelphia.

THE SUBSCRIBER has on hand a good assortment of his best Leveling and Surveying Instruments, among them his improved Compass for taking angles without the needle—also Bells, suitable for Churches, Railroad Depots, etc.

ANDREW MENEELY.

West Troy, May 12, 1847.

1y*21

PIG AND BLOOM IRON.—THE SUBSCRIBERS are agents for the sale of numerous brands of Charcoal and Anthracite Pig Iron, suitable for Machinery, Railroad Wheels, Chains, Hollowware, etc. Also several brands of the best Puddling Iron, Juniata Blooms suitable for Wire, Boiler Plate, Axe Iron, Shovels, etc. The attention of those engaged in the manufacture of Iron is solicited by

A. WRIGHT & NEPHEW,
Vine St. Wharf, Philadelphia.

RAILROAD IRON.—THE "MONTOUR IRON COMPANY," Danville, Pa., is prepared to execute orders for the heavy Rail Bars of any pattern now in use, in this country or in Europe, and equal in every respect in point of quality. Apply to MURDOCK, LEAVITT & CO.

Azards.

77 Pine St., New York.

LAWRENCE'S ROSENDALE HYDRAULIC CEMENT. This cement is warranted equal to any manufactured in this country, and has been pronounced superior to Francis' "Roman." Its value for Aqueducts, Locks, Bridges, Flocks and all Masonry exposed to dampness, is well known, as it sets immediately under water, and increases in solidity for years.

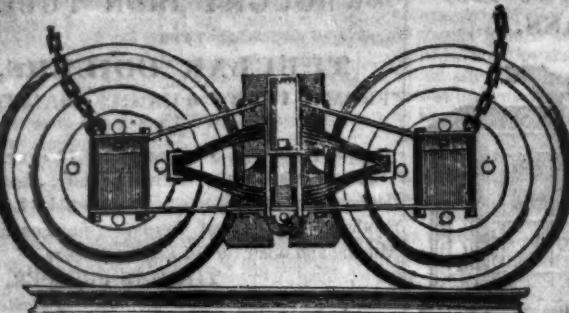
For sale in lots to suit purchasers, in tight paper barrels, by JOHN W. LAWRENCE,

142 Front street, New York.

Orders for the above will be received and promptly attended to at this office.

1y*13

RAY'S EQUALIZING RAILWAY TRUCK.—THE SUBSCRIBER having recently formed a business connection in the City of New



York, expressly for the manufacture of the newly patented and highly approved Railroad Truck of Mr. Fowler M. Ray, is ready to receive orders for building the same, from Railroad Companies and Car Builders in the United States, and elsewhere.

The above Truck has now been in use from one to two years on several roads a sufficient length of time to test its durability, and other good qualities, and to satisfy those who have used it, as may be seen by reference to the certificates which follow this notice.

There have been several improvements lately introduced upon the Truck, such as additional springs in the bolster of passenger cars, making them delightful riding cars—adapting it to tenders, trucks forward of the locomotive, and freight cars, which, with its original good qualities, make it in all respects the most desirable truck now offered to the public.

Orders for the above, will, for the present, be executed at the New York Screw Mill, corner 33d street and 3d avenue, (late P. Cooper's rolling mills) and at the Steam Engine Shop of T. F. Secor & Co., foot of 9th street, East

river, (of which firm the subscriber was late a partner) under the immediate supervision of Mr. Ray himself.

Several sets of trucks containing the latest improvements have recently been turned out for the New York and Erie railroad, and the New Jersey Transportation company, which may be seen upon said roads.

The patronage of Railroad Companies and Car Builders is respectfully solicited.

New York, May 4, 1846.

W. H. CALKINS, and Others.

To all whom it may concern:—This is to certify that the New Haven, Hartford and Springfield railroad co., have had in use six sets of F. M. Ray's patent trucks for the last 20 months, during which time it appears to me, they have proved to be the best and most economical truck now in use.

[Signed.] WILLIAM ROE, Sup't of Power.

I certify that F. M. Ray's Patent Equalizing Railroad Truck has been in use on the Philadelphia and Reading railroad for some time past, under a passenger car.

For simplicity of construction, economy in cost, lightness of material, and extreme ease of motion, I consider it the best truck we have ever used. Its peculiar make also renders it less liable to be thrown off the track, when passing over any obstruction. We intend using it extensively under the passenger and freight cars of the above road.

Reading, Pa., October 6, 1845.

[Signed.] G. A. NICOLL,

Sup't Transportation, etc., Philadelphia and Reading Railroad.

To all whom it may concern:—This is to certify that the N. Jersey Railroad and Transportation company have used Fowler M. Ray's Truck for the last seven months, during which time it has operated to our entire satisfaction. I have no hesitation in saying that it is the simplest and most economical truck now in use.

[Signed.] T. L. SMITH,

Jersey City, November 4, 1845.

N. Jersey Railroad and Transp. Co.

This is to certify that F. M. Ray's Patent Equalizing Railroad Truck has been in use on the Long Island railroad for the last year, under a freight car.

For simplicity of construction, economy in cost, lightness of material and ease of motion, I consider it equal to any truck we have in use.

Long Island Railroad Depot, } [Signed.] JOHN LEACH,

Jamaica November 12, 1845. } 1y19 Sup't Motive Power

ENGLISH PATENT WIRE ROPES—FOR THE USE OF MINES, RAILWAYS, ETC.—

for sale or imported to order by the subscriber.

These Ropes are manufactured on an entirely different principle from any other, and are now almost exclusively used in the collieries and on the railways in Great Britain, where they are considered to be greatly superior to hempen ones, or iron chains, as regards safety, durability and economy. The plan upon which they are made effectually secures them from corrosion in the interior, as well as the exterior of the rope, and gives a greater compactness and elasticity than is found in any other manufacture.

Many of these ropes have been in constant operation in the different mines in England, and on the Blackwall and other inclined planes, for three and four years, and are still in good condition.

They have been applied to almost every purpose for which hempen ropes have been used—mines, heavy cranes, standing rigging, window cords, lightning conductors, signal halyards, tiller ropes, etc. Reference is made to the annexed statement for the relative strength and size. Testimonials from the most eminent engineers in England can be shown as to their efficiency, and any additional information required respecting the different descriptions and application will be given by

ALFRED L. KEMP,

75 Broad street, New York, sole agent in the United States.

Statement of Trial made at the Woolwich Royal Dock Yard, of the Patent Wire Ropes, as compared with Hempen Ropes and Iron Chains of the same strength.—October, 1841.

WIRE ROPES.			HEMPEN ROPES.			CHAINS.		STRENGTH
Wire gauge number.	Circumference of rope.	Weight per fathom.	Circumference of rope.	Weight per fathom.	Weight per fathom.	Diameter of iron.	Tons.	
11	4 $\frac{1}{2}$	13 5	10	24	—	15-16	20	
13	3 $\frac{1}{2}$	8 3	8 $\frac{1}{2}$	16	—	11-16	13 $\frac{1}{2}$	
14	3 $\frac{1}{2}$	6 11	7 $\frac{1}{2}$	12	8	9-16	10 $\frac{1}{2}$	
15	2 $\frac{1}{2}$	5 2	6 $\frac{1}{2}$	9	4	13 $\frac{1}{2}$	1-2	7 $\frac{1}{2}$
16	2 $\frac{1}{2}$	4 3	6	8	8	10 $\frac{1}{2}$	7-16	7

N.B. The working load, with a perpendicular lift, may be taken at 6 cwt. for every lb. weight per fathom, so that a rope weighing 5 lbs. per fathom would safely lift 3360 lbs., and so on in proportion. 1y24

RAILROAD SCALES.—THE ATTENTION of Railroad Companies is particularly requested to Ellicott's Scales, made for weighing loaded cars in trains, or singly, they have been the inventors, and the first to make platform scales in the United States; supposing that an experience of 20 years has given a knowledge and superior advantage in the business.

The levers of our scales are made of wrought iron, all the bearers and fulcrums are made of the best cast steel, laid on blocks of granite, extending across the pit, the upper part of the scale only being made of wood. E. Ellicott has made the largest Railroad Scale in the world, its extreme length was one hundred and twenty feet, capable of weighing ten loaded cars at a single draft. It was put on the Mine Hill and Schuylkill Haven Railroad.

We are prepared to make scales of any size to weigh from five pounds to two hundred tons.

ELLICOTT & ABBOTT.

Factory, 9th street, near Coates, cor. Melon st. Office, No. 3 North 5th street, Philadelphia, Pa.

1y25

NICOLL'S PATENT SAFETY SWITCH for Railroad Turnouts. This invention, for some time in successful operation on one of the principal railroads in the country, effectually prevents engines and their trains from running off the track at a switch, left wrong by accident or design.

It acts independently of the main track rails, being laid down, or removed, without cutting or displacing them.

It is never touched by passing trains, except when in use, preventing their running off the track. It is simple in its construction and operation, requiring only two Castings and two Rails; the latter, even if much worn or used, not objectionable.

Working Models of the Safety Switch may be seen at Messrs. Davenport and Bridges, Cambridgeport, Mass., and at the office of the Railroad Journal, New York.

Plans, Specifications, and all information obtained on application to the Subscriber, Inventor, and Patentee

G. A. NICOLL,
Reading, Pa.

1y45

THE SUBSCRIBERS, AGENTS FOR the sale of
Codorus,
Glendon,
Spring Mill and } Pig Iron.
Valley,

Have now a supply, and respectfully solicit the patronage of persons engaged in the making of Machinery, for which purpose the above makes of Pig Iron are particularly adapted.

They are also sole Agents for Watson's celebrated Fire Bricks and prepared Kaolin or Fire Clay orders for which are promptly supplied.

SAM'L. KIMBER, & CO.,

59 North Wharves,

Jan. 14, 1846. [1y4] Philadelphia, Pa.

TO RAILROAD COMPANIES AND MANUFACTURERS of railroad Machinery. The subscribers have for sale Am. and English bar iron, of all sizes; English blister, cast, shear and spring steel; Juniata rods; car axles, made of double refined iron; sheet and boiler iron, cut to pattern; tiers for locomotive engines, and other railroad carriage wheels, made from common and double refined B. O. iron; the latter a very superior article. The tires are made by Messrs. Baldwin & Whitney, locomotive engine manufacturers of this city. Orders addressed to them, or to us, will be promptly executed.

When the exact diameter of the wheel is stated in the order, a fit to those wheels is guaranteed, saving to the purchaser the expense of turning them outside.

THOMAS & EDMUND GEORGE, a45 N. E. cor. 12th and Market sts., Philad., Pa.

RAILROAD IRON.—THE NEW JERSEY Iron Company, Boonton, N. J., are now making Railroad Bars, and are prepared to execute orders for any required pattern. Apply to

FULLER & BROWN, Agents,

No. 139 Greenwich, corner of Cedar street.

June 1, 1847.

10f

THE SUBSCRIBER IS PREPARED TO execute at the Trenton Iron Works, orders for Railroad Iron of any required pattern, and warranted equal in every respect in point of quality to the best American or imported Rails. Also on hand and made to order, Bar Iron, Braziers' and Wire Rods, etc., etc.

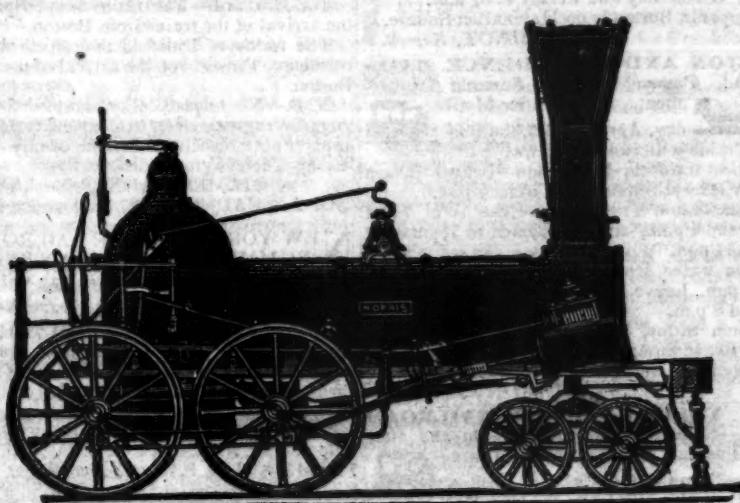
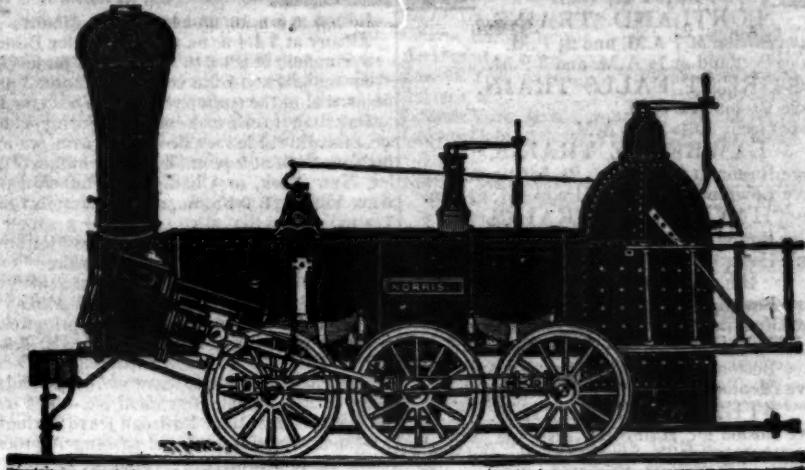
PETER COOPER 17 Burling Slip.

ty10 New York.

BACK VOLUMES OF THE RAILROAD JOURNAL for sale at the office, No. 105 Chestnut street.

NORRIS' LOCOMOTIVE WORKS.

BUSH HILL, PHILADELPHIA, Pennsylvania.



MANUFACTURE their Patent 6 Wheel Combined and 8 Wheel Locomotives of the following descriptions, viz:

Class 1,	15 inches	Diameter of Cylinder,	× 20 inches	Stroke.
" 2,	14 "	" "	× 24 "	" "
" 3,	14½ "	" "	× 20 "	" "
" 4,	12½ "	" "	× 20 "	" "
" 5,	11½ "	" "	× 20 "	" "
" 6,	10½ "	" "	× 18 "	" "

With Wheels of any dimensions, with their Patent Arrangement for Variable Expansion.

Castings of all kinds made to order: and they call attention to their Chilled Wheels, for the Trucks of Locomotives, Tenders and Cars.

NORRIS, BROTHERS.

KEARNEY FIRE BRICK. F. W. BRINLEY, Manufacturer, Perth Amboy, N. J. Guaranteed equal to any, either domestic or foreign. Any shape or size made to order. Terms, mon. from delivery of brick on board. Refer to

James P. Allaire, Peter Cooper, Murdock, Leavitt & Co. New York.

J. Triplett & Son, Richmond, Va.

J. R. Anderson, Tredegar Iron Works, Richmond, Va.

J. Patton, Jr. Philadelphia, Pa. Colwell & Co.

J. M. L. & W. H. Scovill, Waterbury, Conn. N. E. Screw Co. Providence, R. I.

William Parker, Supt. Bost. and Worcester R. R. New Jersey Malleable Iron Co., Newark, N. J. Gardiner, Harrison & Co. Newark, N. J.

25,000 to 30,000 made weekly.

THE NEWCASTLE MANUFACTURING Company continue to furnish at the Works, situated in the town of Newcastle, Del., Locomotive and other steam engines, Jack screws, Wrought iron work and Brass and Iron castings, of all kinds connected with Steamboats, Railroads, etc.; Mill Gearings of every description; Cast wheels (chilled) of any pattern and size, with Axles fitted, also with wrought tires, Springs, Boxes and bolts for Cars; Driving and other wheels for Locomotives.

The works being on an extensive scale, all orders will be executed with promptness and despatch. Communications addressed to Mr. William H. Dobbs, Superintendent, will meet with immediate attention.

ANDREW C. GRAY, a45 President of the Newcastle Manuf. Co.

RAILROAD IRON AND LOCOMOTIVE Tyres imported to order and constantly on hand by

A. & G. RALSTON Mar. 20th 4 South Front St., Philadelphia.

WELDED WROUGHT IRON TUBES for Tubular Boilers, from 1½ to 15 inches diameter, and any length not exceeding 17 feet—manufactured by the Caledonian Tube Company, Glasgow, and for sale by

IRVING VAN WART,
12 Platt street, New York.
JOB CUTLER, Patentee.

These Tubes are extensively used by the British Government, and by the principal Engineers and Steam Marine and Railway Companies in the Kingdom.

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A. & G. RALSTON & CO., NO. 4 South Front St., Philadelphia, Pa. Have now on hand, for sale, Railroad Iron, viz: 180 tons 2½ x 1½ inch Flat Punched Rails, 20 ft. long. 25 " 2½ x 1½ " Flange Iron Rails. 75 " 1 x 1½ " Flat Punched Bars for Drails in Mines. A full assortment of Railroad Spikes, Boat and Ship Spikes. They are prepared to execute orders for every description of Railroad Iron and Fixtures.

11f

THE SUBSCRIBERS ARE PREPARED TO execute orders at their Phoenix Works for Railroad Iron of any required pattern, equal in quality and finish to the best imported.

REEVES, BUCK & CO., Philadelphia.
ROBERT NICHOLS, Agent, No. 79 Water St., New York.

TO LOCOMOTIVE AND MARINE ENGINE BOILER BUILDERS. Pascal Iron Works, Philadelphia. Welded Wrought Iron Flues, suitable for Locomotives, Marine and other Steam Engine Boilers, from 2 to 5 inches in diameter. Also, Pipes for Gas, Steam and other purposes; extra strong Tube for Hydraulic Presses; Hollow Pistons for Pumps of Steam Engines, etc. Manufactured and for sale by

MORRIS TASKER & MORRIS, Warehouse S. E. corner 3d and Walnut Sts., Philadelphia.

PATENT INDESTRUCTIBLE WATER PIPES. The subscribers continue to manufacture the above PIPES, of all the sizes and strength required for City or Country use, and would invite individuals or companies to examine its merits. This pipe, unlike cast iron and lead, imparts neither color, oxide or taste, being formed of strongly riveted sheet iron, and evenly lined on the inside with hydraulic cement. While in the process of laying, it has a thick covering externally of the same—thus forming nature's own conduit of stone. The iron being thoroughly encased on both sides with cement, precludes the possibility of rust or decay, and renders the pipe truly *indestructible*. The prices are less than those of iron or lead. We also manufacture Basins and D. Traps, for Water Closets, on a new principle, which we wish the public to examine at 112 Fulton street, New York.

28f J. BALL & CO.

CONNECTION BETWEEN THE BOSTON and Lowell and the Boston and Maine Railroads. On and after April 1st, 1847, passenger trains

between these two roads, will run as follows, viz: Leaving Lowell at 7, 11 1-4 a.m., and 2 1-2, 4 1-2, and 6 1-2 p.m., to connect at the junction in Wilmington with the eastward trains—at 7 a.m. and 2 1-2 p.m. with those to Portland; at 4 1-2 p.m. to Great Falls only, with a detention of 45 minutes at the junction, and at 11 1-4 a.m. and 6 1-2 p.m. to Haverhill only. Leaving the junction in Wilmington, for Lowell, at about 7 1-4 a.m. on arrival of the morning train from Haverhill; at about 9 a.m., on arrival of the morning trains from Great Falls. At about 11 3-4 a.m., on arrival of the morning train from Portland. At about 5 p.m. on arrival of the afternoon trains from Haverhill. At about 7 1-4 p.m., on arrival of the afternoon train from Portland.

WALDO HIGGINSON, Agent.

LITTLE MIAMI RAILROAD.—OPEN TO SPRINGFIELD—Distance 84 miles—connecting at Xenia and Springfield with Messrs. Neil, Moore, & Co's, daily daylight lines of stages going east and north, to Columbus, Zanesville, Wheeling, Cleveland, and Sandusky City, via Urbana, Bellefontaine, Kenton, and the Mad river and lake Erie railroad, or Columbus, Delaware, and the Mansfield and Sandusky City railroad—forming, by these connections, the cheapest and most expeditious route to Buffalo, Niagara Falls, Rochester, Albany, New York, and Boston.

On and after Thursday, August 13, 1846, until further notice, a Passenger train will run as follows

Leave Cincinnati daily at 9 A. M., for Milford, Foster's Crossing, Deerfield, Morrow, Fort Ancient, Freeport, Waynesville, Spring Valley, Xenia, Old Town, Yellow Springs, and Springfield.

Returning, will leave Springfield at 4 hours 35 minutes A. M. A line of Hacks runs in connection with the Cars, between Deerfield and Lebanon.

FARE—From Cincinnati to Lebanon....\$1 00
" " Xenia....1 50
" " Springfield....2 00
" " Columbus....4 00
" " Sandusky city 8 00

The Passenger trains runs in connection with Strader & Gorman's line of Mail Packets to Louisville.

Tickets can be procured at the Broadway Hotel, Dennison House, or at the Depot of the Company on East Front street.

Further information and through tickets for the Stage lines, may be procured at P. Campbell, Agent on Front street, near Broadway.

The company will not be responsible for baggage beyond 50 dollars in value, unless the same is returned to the conductor or agent, and freight paid at of a passage for every \$500 in value over that amount.

The 1 1/2 P. M. train from Cincinnati, and the 2 40 P. M. train for Xenia, will be discontinued on and after Monday, the 10th instant.

A freight train will run daily.
471 W. H. CLEMENT, *Sup't.*

PATERSON RAILROAD

Summer Arrangement.

Commencing April 20th, 1847, the cars will leave

Paterson at	New York at
8 o'clock a.m.	9 1/2 o'clock a.m.
11 1/2 o'clock a.m.	12 1/4 o'clock p.m.
4 o'clock p.m.	5 1/2 o'clock p.m.

On Sunday.

8 o'clock a.m.	9 1/2 o'clock a.m.
4 o'clock p.m.	5 1/2 o'clock p.m.

Office 75 Courtlandt St.

BALTIMORE AND OHIO RAILROAD.—**MAIN STEM.** The Train carrying the Great Western Mail leaves Baltimore every morning at 7 1/2 and Cumberland at 8 o'clock, passing Ellicot's Mills, Frederick, Harpers Ferry, Martinsburg and Hancock, connecting daily each way with the Washington Trains at the Relay House seven miles from Baltimore, with the Winchester Trains at Harpers Ferry—with the various railroad and steamboat lines between Baltimore and Philadelphia and with the lines of Post Coaches between Cumberland and Wheeling and the fine Steamboats on the Monongahela Slack Water between Brownsville and Pittsburgh. Time of arrival at both Cumberland and Baltimore 5 1/2 P. M. Fare between those points \$7, and 4 cents per mile for less distances. Fare through to Wheeling \$11 and time about 36 hours, to Pittsburgh \$10, and time about 28 hours. Through tickets from Philadelphia to Wheeling \$13, to Pittsburgh \$12. Extra train daily except Sundays from Baltimore to Frederick at 4 P. M. and from Frederick to Baltimore at 8 A. M.

WASHINGTON BRANCH.

Daily trains at 9 A. M. and 5 P. M. and 12 at night from Baltimore and at 6 A. M. and 5 1/2 P. M. from Washington, connecting daily with the lines North, South and West, at Baltimore, Washington and the Relay house. Fare \$1 60 through between Baltimore and Washington, in either direction, 4 cents per mile for intermediate distances.

BALTIMORE AND SUSQUEHANNA

Railroad.—Reduction of Fare. Morning and Afternoon Trains between Baltimore and York.

more and York.—The Passenger trains run daily, except Sunday, as follows: Leaves Baltimore at.....9 a.m. and 3 1/2 p.m. Arrives at.....9 a.m. and 6 1/2 p.m. Leaves York at.....5 a.m. and 3 p.m. Arrives at.....12 1/2 p.m. and 8 p.m. Leaves York for Columbia at.....11 p.m. and 8 a.m. Leaves Columbia for York at.....8 a.m. and 2 p.m.

FARE.

Fare to York.....	\$1 50
" " Wrightsville.....	2 00
" " Columbia.....	2 12 1/2

Way points in proportion.

PITTSBURG, GETTYSBURG AND HARRISBURG.

Through tickets to Pittsburg via stage to Harrisburg.....

Or via Lancaster by railroad.....

Through tickets to Harrisburg or Gettysburg.....

In connection with the afternoon train at 3 1/2 o'clock, a horse car is run to Green Spring and Owing's Mill, arriving at the Mills at.....5 1/2 p.m.

Returning, leaves Owing's Mills at.....7 a.m.

D. C. H. BORDLEY, *Sup't.*

31 ly Ticket Office, 63 North st.

LEXINGTON AND OHIO RAILROAD.

Trains leave Lexington for Frankfort daily, at 5 o'clock a.m. and 2 p.m.

Trains leave Frankfort for Lexington daily, at 8 o'clock a.m. and 2 p.m. Distance, 28 miles. Fare \$1 25.

On Sunday but one train, 5 o'clock a.m. from Lexington, and 2 o'clock p.m. from Frankfort.

The winter arrangement (after 15th September to 15th March) is 6 o'clock a.m. from Lexington, and 9 a.m. from Frankfort, other hours as above. 351

CENTRAL AND MACON AND WESTERN RAILROADS, GA.

These Roads with the Western and Atlantic Railroad

of the State of Georgia, form a continuous line from Savannah to Oothcaloga, Ga., of 371 miles, viz:

Savannah to Macon—Central Railroad.....190

Macon to Atlanta—Macon and Western.....101

Atlanta to Oothcaloga—Western and Atlantic.....80

Goods will be carried from Savannah to Atlanta and Oothcaloga, at the following rates, viz:

On Weight Goods—Sugar, Coffee, Liquor, Bagging, Rope, Butter, Cheese, Tobacco, Leather, Hides, Cotton Yarns, Copper, Tin, Bar & Sheet Iron, Hollow Ware & Castings.....	\$0 50
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Flour, Rice, Bacon in Casks or boxes, Pork, Beef, Fish, Lard, Tallow, Beeswax, Mill Gearing, Pig Iron and Grind Stones.....	0 50
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On Measurement Goods—Boxes of Hats, Bonnets and Furniture, per cubic foot.....	0 20
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Boxes and Bales of Dry Goods, Saddlery, Glass, Paints, Drugs and Confectionary, per cubic foot.....	0 20 pr. 100 lbs. 35
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Crockery, per cubic foot.....	0 15 " 35
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Molasses and Oil, per hhd, (smaller casks in proportion). 9 00	12 50
--	-------

Ploughs, (large,) Cultivators, Corn Shellers, and Straw Cutters, each.....	1 25
--	------

Ploughs, (small,) and Wheel-barrows.....	0 80
--	------

Salt, per Liverpool Sack.....	0 70
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Passage—Savannah to Atlanta, \$10; Children, under 12 years of age, half price, Savannah to Macon, \$7.	0 95
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Goods consigned to the subscriber will be forwarded free of Commissions.

Freight may be paid at Savannah, Atlanta or Oothcaloga.

F. WINTER, *Forwarding Agent, C. R. R.*

Savannah, Aug. 15th, 1846.

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CENTRAL RAILROAD—FROM SAVANNAH to Macon. Distance 190 miles.

This Road is open for the trans-

portation of Passengers and Freight. Rates of Passage, \$8 00. Freight—

On weight goods generally... 50 cts. per hundred.

On measurement goods..... 13 cts. per cubic ft.

On brls. wet (except molasses

and oil)..... \$1 50 per barrel.

On brls. dry (except lime)..... 80 cts. per barrel.

On iron in pigs or bars, castings for mills, and unboxed

machinery..... 40 cts. per hundred.

On hds. and pipes of liquor,

not over 120 gallons..... \$5 00 per hhd.

On molasses and oil..... \$6 00 per hhd.

Goods addressed to F. WINTER, Agent, forwarded

free of commission. THOMAS PURSE,

y40 Gen'l. Sup't. Transportation.

SOUTH CAROLINA RAILROAD.

Passenger Train runs daily from Charleston,

on the arrival of the boats from

Wilmington, N. C., in connection

with trains on the Georgia, and Western and Atlantic Railroads—and by stage lines and steamers connects with the Montgomery and West Point, and the Tuscaloosa Railroad in N. Alabama.

Fare through from Charleston to Montgomery

daily..... \$26 50

Fare through from Charleston to Huntsville,

Decatur and Tuscaloosa..... 22 00

The South Carolina Railroad Co. engage to re-

ceive merchandise consigned to their order, and to

forward the same to any point on their road; and to

the different stations on the Georgia and Western

and Atlantic railroad; and to Montgomery, Ala., by

the West Point and Montgomery Railroad.

JOHN KING, Jr., *Agent.*

THE WESTERN AND ATLANTIC

Railroad.—This Road is now in operation to Oothcaloga, a distance of 80 miles, and connects daily (Sundays excepted) with the Georgia Railroad.

From Kingston, on this road, there is a tri-weekly line of stages, which leave on the arrival of the cars on Tuesday, Thursday and Saturday, for Warren, Huntsville, Decatur and Tuscaloosa, Alabama, and Memphis, Tennessee.

On the same days, the stages leave Oothcaloga for Chattanooga, Jasper, Murfreesborough, Knoxville and Nashville, Tennessee.

This is the most expeditious route from the east to any of these places.

CHAS. F. M. GARNETT,

Chief Engineer.

Atlanta, Georgia, April 16th, 1846.

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NEW YORK AND PHILADELPHIA RAILROAD

road line—direct. Via Newark, New Bruns-

wick, Princeton, Trenton,

and Bristol. (Through in

six hours.) Leaving New York daily from the foot of Liberty street.

Morning line..... 9 o'clock a.m.

Mail pilot line..... 4 p.m.

The lines proceed direct to Bristol without change

of cars, and thence by the new steamer, "John Stevens," to Philadelphia.

FARE BETWEEN NEW YORK & PHILA.

First class cars..... \$4 00

Second class cars..... 3 00

Passengers will procure their Tickets at the office

foot of Liberty st., where a commodious steamboat

will be in readiness with Baggage-crates on board.

Fifty pounds of baggage will be allowed to each

passenger in this line, and passengers are expressly

prohibited from taking anything as baggage but

their wearing apparel, which will be at the risk of

the owner.

Philadelphia Baggage-crates are conveyed from

city to city, without being opened by the way. Each

train is provided with a car, in which are apart-

ments and dressing rooms expressly for ladies' use.

Returning, the lines leave Philadelphia from the

foot of Walnut st. at 9 a.m. and 4 1/2 p.m.

The lines for Baltimore leave Philadelphia daily,

except Sundays, at 8 a.m., 3 1/2 and 10 p.m., and Sun-

days only at 10 p.m.—being a continuation of the

line from New York.

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PHILADELPHIA AND READING RAILROAD.—Passenger Train Arrangement for
1847.

A Passenger Train will leave Philadelphia and Pottsville daily, except Sundays, at 9 o'clock A. M.

The Train from Philadelphia arrives at Reading at 12 18 M.

The Train from Pottsville arrives at Reading at 10 43 A. M.

Fares. Miles. No. 1. No. 2.
Between Phila. and Pottsville, 92 \$3 50 and \$3 00
" " Reading, 58 2 25 and 1 90

" Pottsville 34 1 40 and 1 20

Five minutes allowed at Reading; and three at other way stations.

Passenger Depot in Philadelphia corner of Broad and Vine streets. 8t

PHILADELPHIA, WILMINGTON & BALTIMORE RAILROAD.—1847.

Summer Arrangement.

Philadelphia for Baltimore . . . 8 a.m. and 10 p.m.
Baltimore for Philadelphia . . . 9 a.m. and 8 p.m.
Connecting with Mail Lines North, South & West.

On Sundays, only the 10 P. M. Lines run.
The Boat Lines, via Newcastle & Frenchtown R.R.

Leave Philadelphia at 3 p.m. No line on Sun.
Leave Baltimore at 3 p.m. 3 day.

Accommodation Trains between Philadelphia & Wilmington.—Philadelphia to Wilmington 8 a.m., mail, 12 1/2 p.m., 4 p.m., 7 p.m., 10 p.m. mail. Wilmington to Philadelphia, 7 a.m., 1 p.m., mail, 4 1/2 p.m., 7 p.m., 12 1/2 a.m., night mail.

J. R. TRIMBLE,
2d Engineer and General Superintendent.

GEORGIA RAILROAD. FROM AUGUSTA to ATLANTA—171 MILES. AND WESTERN AND ATLANTIC RAILROAD FROM ATLANTA TO DALTON, 100 MILES.

This Road in connection with the South Carolina Railroad and the Western and Atlantic Railroad now forms a continuous line, 408 miles in length, from Charleston to Dalton (Cross Plains) in Murray county, Ga.—32 miles from Chattanooga, Tenn.

	RATES OF FREIGHT.	
	Between Augusta and Dalton, 271 miles.	Between Charleston and Dalton, 408 miles.
1st class.	Boxes of Hats, Bonnets, and Furniture, per cubic foot	\$0 18 \$0 28
2d class.	Boxes and Bales of Dry Goods, Sadlery, Glass, Paints, Drugs and Confectionary, per 100 lbs.	1 00 1 50
3d class.	Sugar, Coffee, Liquor, Bagging, Rope, Cotton Yarns, Tobacco, Leather, Hides, Copper, Tin, Feathers, Sheet Iron, Hollow Ware, Castings, Crockery, etc.	0 60 0 85
4th class.	Flour, Rice, Bacon, Pork, Beef, Fish, Lard, Tallow, Beeswax, Bar Iron, Ginseng, Mill Gearing, Pig Iron, and Grindstones, etc	0 40 0 65
	Cotton, per 100 lbs.	0 45 0 7
	Molasses, per hoghead	8 50 13 50
	" " barrel	2 50 4 25
	Salt per bushel	0 18
	Salt per Liverpool sack	0 65
	Ploughs, Corn Shellers, Cultivators, Straw Cutters, Wheelbarrows	0 75 1 50

German or other emigrants, in lots of 20 or more, will be carried over the above roads at 2 cents per mile.

Goods consigned to S. C. Railroad & Co. will be forwarded free of commissions. Freight payable at Dalton.

F. C. ARMS,

Sup't. of Transportation.

Augusta, Ga., July 15, 1847.

RATES OF FREIGHT

On CHANDLER'S Through Transportation Line, between Charleston, S. C., or Savannah, Ga., and Decatur, Ala., and Knoxville, Tenn., and all intermediate points on the Tennessee River, viz:

Between Macon	and Decatur and immediate points	0 22
and Knoxville & intermediate points	0 22	
and Chattanooga		
and Decatur and intermediate points	0 24	
and Knoxville & intermediate points	0 24	
and Chattanooga		
and Decatur and intermediate points	0 32	
and Knoxville & intermediate points	0 32	
and Chattanooga		

1st class.—Boxes of Hats, Bonnets and Furniture per foot
2d class.—Boxes and Bales of Dry Goods, Shoes, Saddlery, Glass, Paints, Oils (in cans) Drugs, Confectionaries, Shovels, Spades, Sifters, Baskets, Baskets, Tubs, Sifters, Brooms and other light articles, per 100 lbs.
3d class.—Molasses, Sugar, Coffee, Liquor, Bagging, Rope, Cheeses, Tobacco, Leather, Feathers, Hides, Wool, Copper, Tin, Sheet-iron, Nails, Casks, or Crates of Crockery, Hardware, and other heavy articles not enumerated below
4th class.—Flour, Bacon, (in casks or boxes) Pork, Beef, Lard, Tallow, Butter, Beeswax, Bales of Rags, Ginseng, Green seed Oil, per 100 lbs	Per 100 lbs.

Merchandise shipped from any of the northern ports, must be consigned to R. R. AGENT, CHARLESTON, S. C., or R. R. AGENT, SAVANNAH, GA.: and every package must be marked, care of B. CHANDLER, Chattanooga.

Charges will accompany the goods, and be collected by the boats on the Tennessee river, when delivered to the owner or consignee

No preference in the way of despatch, will be given to any produce intended for their line, but each lot will be sent off as it is received.

The warehouse of the undersigned will be enlarged during the summer, and an apparatus attached for hoisting or lowering freight to the river, without soil or injury.

He will have a train of wagons under his entire control, sufficient to conduct the fall business with great despatch.

B. CHANDLER.

Chattanooga, Tenn., July 1, 1847.

REGULAR RATES BETWEEN ATLANTA AND CHARLESTON OR SAVANNAH.

First class, per foot	90 20
Second class, per 100 lbs.	1 20
Cotton, per 100 lbs.	0 55
Third class, per 100 lbs.	0 60
Fourth class, per 100 lbs.	0 50

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No. 105 Chestnut Street, Philadelphia. The undersigned takes the liberty of calling the attention of the readers of the Journal to the fact that the Office is removed from New York to the FRANKLIN HOUSE, Philadelphia, where he will be always pleased to meet and greet them. They will not only find a pleasant Reading Room, with lots of foreign periodicals, treating of Railroads and Machinery, but they will always find good-sized and airy rooms—clean beds—and a well supplied table. If they would have further proof of this, they have only to call, and judge for themselves, and much oblige the proprietor,

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